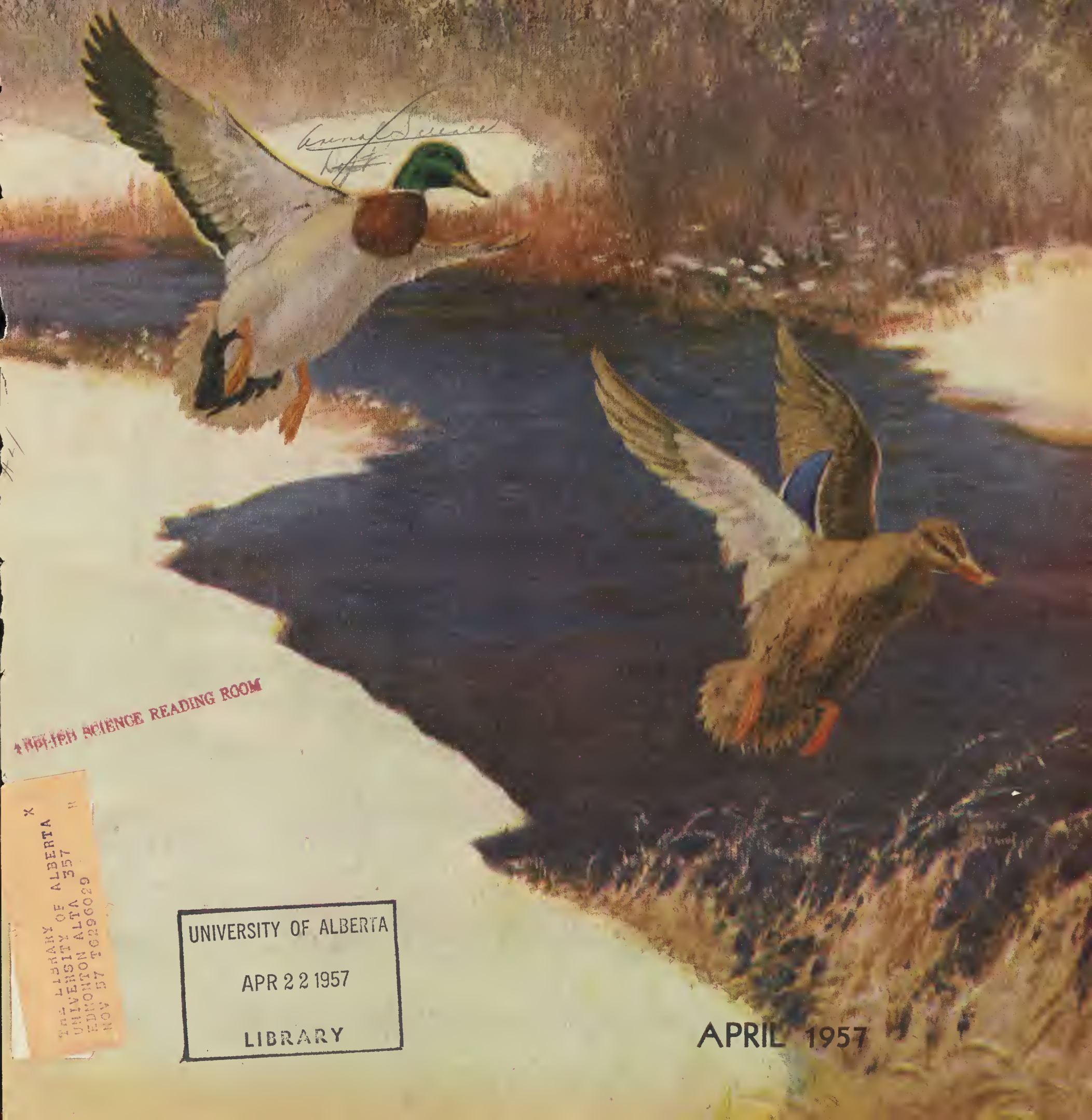


THE *Country* GUIDE



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[D. Clemson photo]

THE *Country* GUIDE

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COVER: Our cover this month is the twenty-sixth that has been painted for The Country Guide by Clarence Tillenius, the well-known Canadian animal painter.

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SUBSCRIPTION PRICES IN CANADA—50 cents one year; \$1.00 two years; \$2.00 five years; \$3.00 eight years. Outside Canada \$1.00 per year.

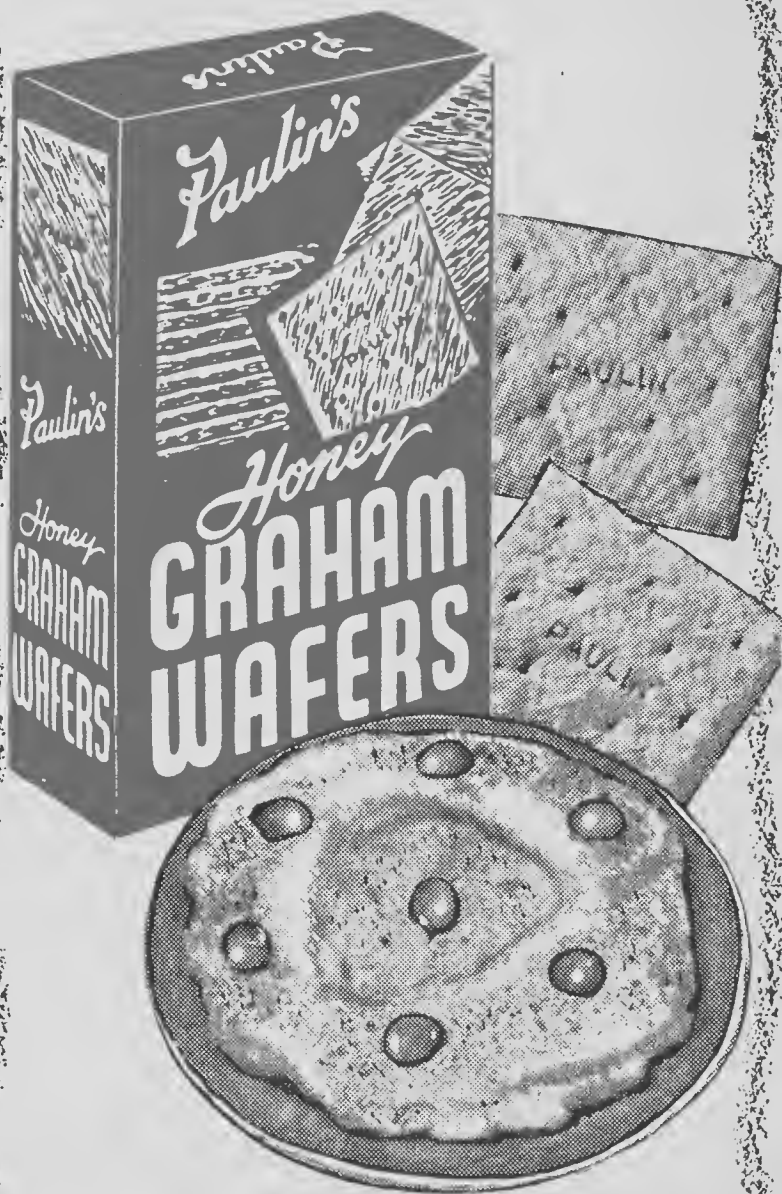
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DELICIOUS DELICACIES WITH



There are so many uses for these pure fresh honey graham wafers! So many pies — cakes — tarts you can make for everyday desserts — for all your entertaining too! Here's an interesting suggestion: *

Paulin's Honey Graham Wafer Pie

CRUST PART

32 Paulin's Graham Wafers
1/4 tsp. of salt
1 tbsp. of sugar
1/2 cup of butter

2 eggs separated
2 tablespoons of white sugar
Pinch of salt (additional)
1/4 teaspoon of vanilla flavoring (additional)

Roll Graham Wafers into fine crumbs, add salt and sugar and stir well. Add butter and blend as far as pastry. Empty into a 10-inch pie plate (keeping out 1/2 cup of crumbs for top) and with a large spoon press and mould to shape of plate. Bake in a moderately hot oven 375 degrees F. for 20 minutes. Meanwhile prepare filling:

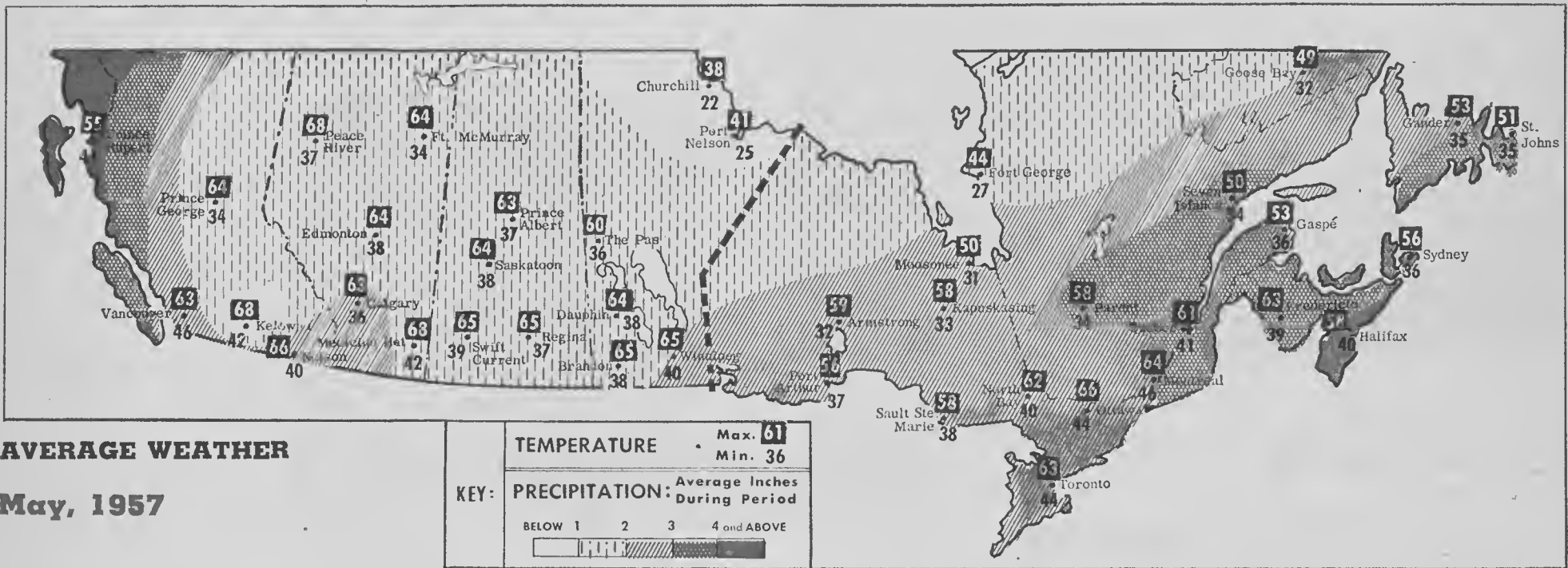
2 cups of milk
1 cup of brown sugar
2 tablespoons of butter
3 1/2 tablespoons of cornstarch
1/4 teaspoon salt
1 teaspoon of vanilla

Heat 1 1/4 cups of milk in the top part of a double boiler. Melt sugar and butter in a heavy saucepan and stir until a deep golden brown, then pour into the heated milk. Blend the cornstarch with the remaining milk and add to the mixture, stirring until mixture thickens. Add salt, vanilla, and beaten egg yolks, stir well and turn into the baked shell. Beat egg whites, add sugar, add the additional salt and vanilla flavoring, mix well and spread over filling. Garnish with the remaining crumbs and brown in a slow oven. Cool and serve.

Paulin's

Honey
GRAHAM WAFERS

Weather Forecast

Prepared by
DR. IRVING P. KRICK
and Associates(Allow a day or two either way in using this forecast.
It should be 75 per cent right for your area, but
not necessarily for your farm.—ed.)**Alberta**

Generally speaking, May will be warm and dry. Temperatures will average up to three degrees above the usual for this time of year, with warmest (in relation to normal) being experienced in the northeastern part of the province.

Although the three intervals of storminess are noted on the timing

bar they are expected to be quite light storms and precipitation will generally average below normal. May will be similar to last year when warm and dry conditions were also experienced. Outside work should pick up considerably with interruptions few and far between during this forecast period. ✓

PRECIPITATION
MAY
TEMPERATURE

**Saskatchewan**

A good warm month is in prospect for May. No extremely cold temperatures are expected and during the interval of warm weather, temperatures could soar as high as 80, particularly during the latter part of the month. Storminess will be light and infrequent, with precipitation less than normal for the month. Last year, the

entire province was quite warm, but there the similarity between this year and last year ends. Although the southern half of the province was below normal in precipitation, the northern half had a considerable amount of storminess, which produced above-normal precipitation, in contrast with this year's expectations. ✓

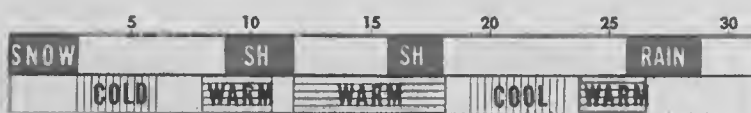
PRECIPITATION
MAY
TEMPERATURE

**Manitoba**

Conditions will change radically this month, and, following two months of quite cold weather, temperatures will average between two and four degrees above the usual for this time of year. Three warm intervals of significance will occur, with the warmest parts of the month between the 7th and 18th, and again in the last week.

Precipitation will fall short of normal, although four periods of storminess are anticipated. Amounts during each storm will be quite light. This is in direct contrast to May, 1956, when below usual temperatures were recorded and most of the province had above-normal precipitation during that period. ✓

PRECIPITATION
MAY
TEMPERATURE

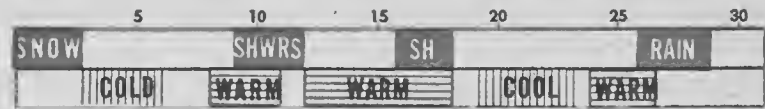
**Ontario**

Temperatures will average above normal over the entire province, except for the extreme eastern portion. Here, two cold periods will be intense enough to cause temperatures a degree or two below normal during the forecast period.

Precipitation will vary from extremely dry conditions in the north-

western portion of the province to above normal in the southeastern portion. Roughly, the line between wet and dry will run from the western portion of Lake Superior northeast. East of that line, frequent storminess will combine to produce more than usual amounts, especially between the 15th and 20th. ✓

PRECIPITATION
MAY
TEMPERATURE

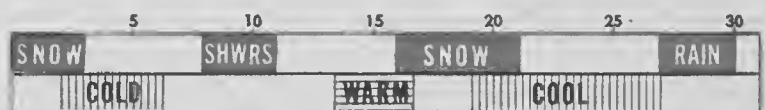
**Quebec**

A colder regime will be in evidence in this province. Just as in the case of last year, the entire month will show enough cold weather to produce irregularities up to three degrees below normal throughout the forecast district.

The precipitation pattern will also be similar to May last year, when the

southern portion of the province experienced abnormal amounts of precipitation, while the northern portion was quite dry. Of course in those portions of the province which are quite wet, rapid growth should be encouraged, although retarded somewhat because of the cold weather during May. ✓

PRECIPITATION
MAY
TEMPERATURE

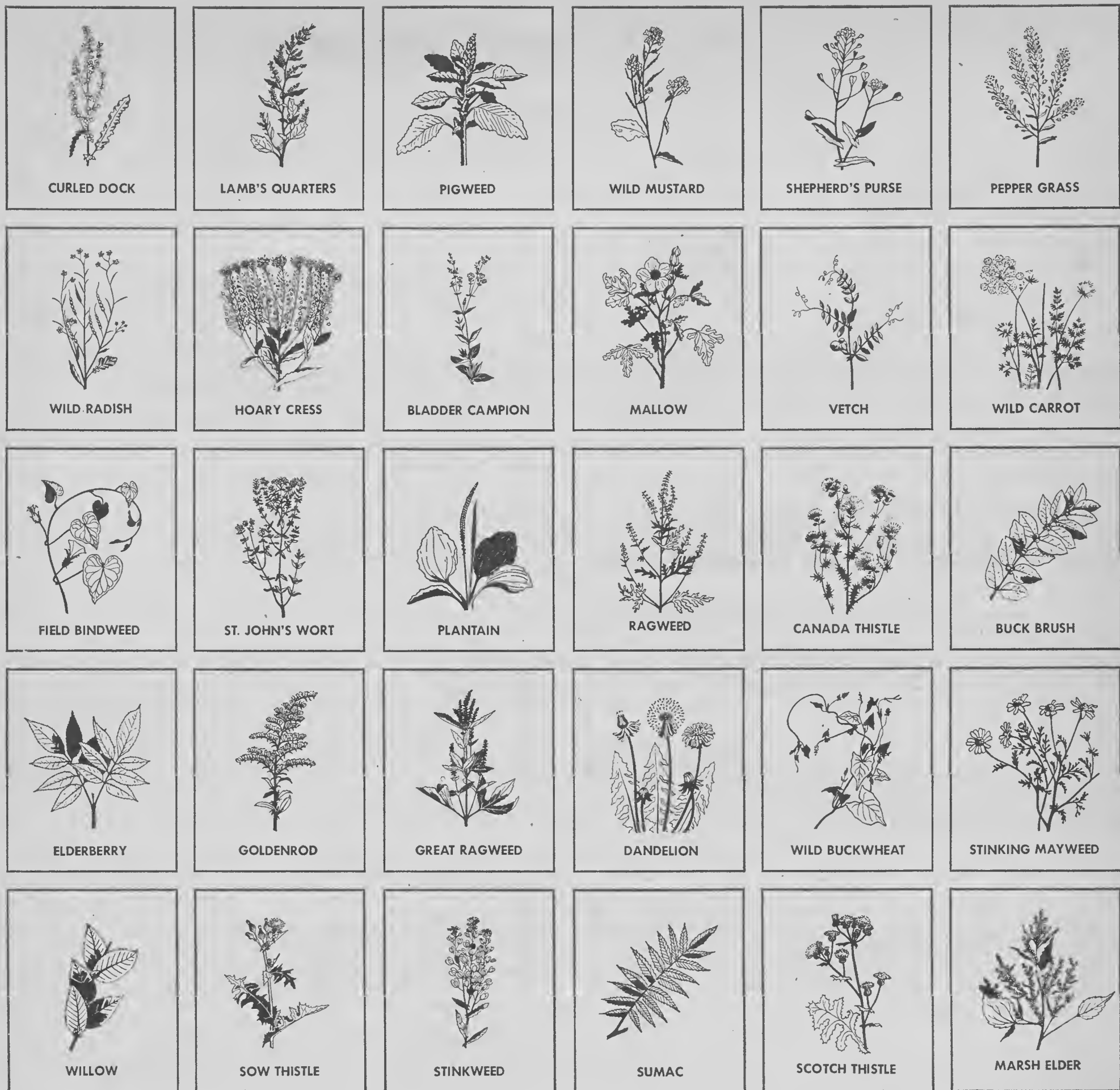
**Maritime Provinces**

Two words describe the weather for May—wet and cold. Frequent rain will occur, producing amounts of precipitation above normal, particularly in the southern portions and will contrast greatly with last May, when drier conditions were felt, with the exception of the immediate eastern seaboard.

The temperature anomaly will be close to that of May, 1956. Although only two periods of cold weather are anticipated, they will both be strong enough to bring temperatures down below the usual levels. Last year the same thing was true, when temperatures averaged between two and four degrees below normal. ✓

PRECIPITATION
MAY
TEMPERATURE





30 good reasons why farmers use ESTERON 99

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FARM NOTES

MacKenzie New P.F.R.A. Director

THE Prairie Farm Rehabilitation administration, well known agency of the Canada Department of Agriculture, has a new director. He is Gordon L. MacKenzie, who succeeds the late Dr. L. B. Thomson.

Mr. MacKenzie was born at Guelph, Ontario, and graduated with honors in civil engineering from Queen's University, in 1919. He joined the P.F.R.A. staff in 1937, after spending 15 years as a consulting engineer with a Saskatoon firm. He held the posts of district engineer in Manitoba, and office engineer in Regina, before becoming chief engineer in 1946.

In addition to his duties as chief engineer, Mr. MacKenzie has been chairman for Canada of international engineering boards on western water references under the International Joint Commission. He also made an investigation, and reported on suitable works to reduce the flood hazards on the Red River in the greater Winnipeg area.

Skimmilk Gets Support

THE Agricultural Prices Support Board has been authorized to support First Grade dry skimmilk at 17 cents per pound, for spray process, and 14 cents for roller process, f.o.b. storages at designated points throughout Canada. The announcement was made by the Rt. Hon. J. G. Gardiner, Minister of Agriculture, in his address to the annual meeting of the Ontario Concentrated Milk Producers' Association.

The new support for skimmilk was greeted warmly by dairy producers and farm organizations, because they believe it will give, in combination with the butter support price, a substantial measure of stability to the entire milk industry.

World Farm Output Now at Record Level

A RECORD output of both crops and livestock in 1956-57 is keeping world agricultural production in step with expanding population, according to the U.S.D.A. Foreign Agricultural Service.

The new high level of production is 120 per cent of pre-war (1935-39). A year ago the level was 118 per cent; two years ago, 116 per cent. Per capita output in the Free World is exactly at pre-war level; in the communist area, it stands at 91 per cent.

Here are the outstanding features of world agricultural production during 1956-57:

- Record crops of rice, corn, sugar and tobacco.
- Generally high European production, despite last winter's freeze.
- A ten per cent increase in total Soviet crop production, resulting from favorable weather in newly developed areas east of the Volga and Ural Mountains.



[C.D.A. photo]
Gordon L. MacKenzie of Regina, who has been named director of P.F.R.A.

C.F.A. Makes Conservation Submission

THE Canadian Federation of Agriculture, in a recent submission to the special Senate Committee on land use in Canada, called for a more comprehensive federal conservation and rehabilitation program, to be administered by the Canada Department of Agriculture. The Federation suggested that such a program might provide for participation with provincial governments in projects involving rehabilitation of marginal and sub-marginal farm areas, drainage of farm lands, erosion control, watershed development, woodlot management and irrigation projects.

Specifically, the submission called for:

- The setting up of special programs to assist farmers to enlarge their holdings, thus putting them on a sound business basis.
- The establishment of a special credit agency which would provide long-term credit to farmers at low interest, as well as special farm management supervision and technical help.
- An expansion of the present soil survey program, because the information was needed for the development of an adequate land use program.
- More survey work on economic land classification, and on water and farm woodlot resources.
- Social and economic farm surveys to provide a more accurate picture of farm income and living standards.

Sharp Drop In Farm Numbers

THE number of farms recorded in the 1956 census was 575,015 for Canada as a whole, a drop of 48,076 or eight per cent, from the 1951 census count of 623,091. Among the provinces, Ontario had the largest number of farms in 1956 at 140,602 as against 149,920 in 1951. The number of farms in other provinces last year, with the 1951 comparison shown in brackets, was as follows: Quebec, 122,617 (134,336); Saskatchewan, 103,391 (112,018); Alberta, 79,424 (84,315); Manitoba,

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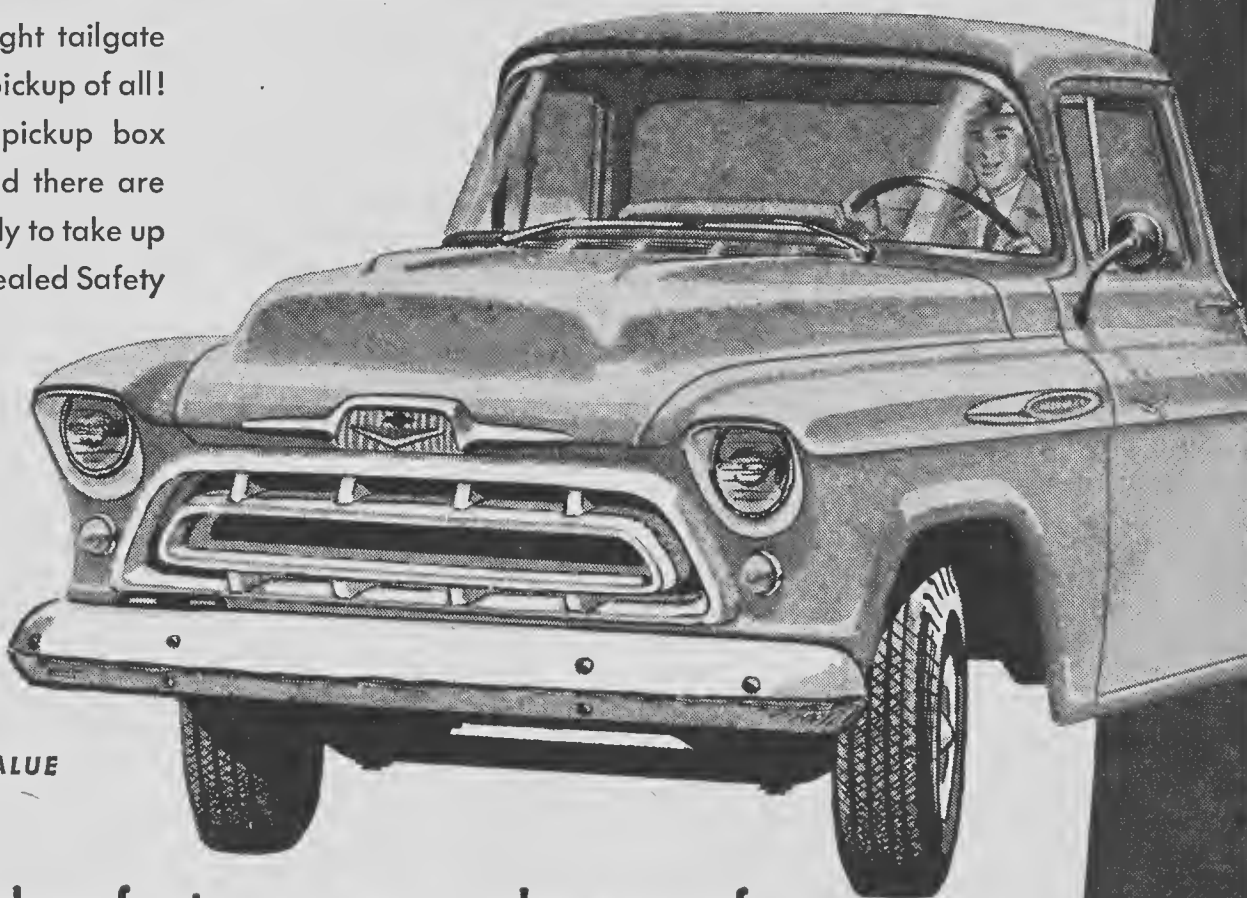
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FARM NOTES

49,201 (52,383); British Columbia, 24,748 (26,406); New Brunswick, 22,116 (26,431); Nova Scotia, 21,075 (23,515); Prince Edward Island, 9,432 (10,137), and Newfoundland, 2,387 (3,626).

Canada's total farm area in June last was about 174 million acres and showed only a slight reduction from the 1951 acreage. As a result, the average area per farm, for all Canada, increased from 279 acres in 1951 to 302 acres in 1956.

For census purposes a farm is described as a holding on which agricultural operations are carried out, and which is: (1) Three acres or more in size, or (2) From one to three acres in size, and with the agricultural production in 1955 valued at \$250 or more. V

Land Use Changes In Prospect for 1957

IF Canadian farmers carry through with the intentions they recorded with the Dominion Bureau of Statistics on March 1, they plan to make some major changes in the acreages planted to principal field crops in the coming crop year. Prairie farmers especially are expecting to continue to adjust their acreages in the light of large supplies of bread grains on hand, and the consequent marketing quotas that are in effect.

The D.B.S. report reveals the prospective acreage to be seeded to all wheat is the smallest since 1943, when a special war-time acreage reduction program was in effect. Barley acreage may be only slightly below the 1955 record level, while oat plantings may be the highest since World War II. Plantings of durum wheat, flaxseed, rapeseed and mustard seed, all of which are grown mainly in the prairie provinces, may be the highest on record.

Estimates are based on survey data collected from the Bureau's crop correspondents. Farmers are warned that the planting forecasts are merely indicative of farmers' plans at March 1, and the acres actually seeded, therefore, may vary considerably from the estimates, depending upon conditions before and during seeding.

Here then, is the picture presented on intended acreages for the main field crops for 1957:

Wheat. All wheat acreage may stand at 19.9 million acres, a decrease of 1.5 million acres from 1956 seedings and 4.7 million acres or 19 per cent below the 1951-55 acreage. The major part of this decline is expected to occur in Saskatchewan where a reduction of eight per cent from 1956 seedings is indicated. The largest single shift in the use of crop land in prospect for 1957 is the decrease of nearly 1.4 million acres of spring wheat in the prairie provinces. In this area, bread wheat acreage may decline 2.2 million acres, whereas durum acreage may increase 0.8 million acres.

Rye. The area intended for rye in 1957 is placed at 168,800 acres, four per cent above last year's level. The combined acreage of fall and spring rye is placed at 579,200 acres, also up

four per cent from last season, but only about half the five-year (1951-55) average.

Oats. The intended acreage of oats at 12.1 million acres, is the largest since 1945, and 12 per cent above the recent (1951-55) average.

Barley. Intended barley acreage is placed at 9.7 million acres, only slightly below the 1955 record of 9.9 million acres, but 11 per cent above last year, and 13 per cent above the five-year average.

Corn for Grain. Intended acreage for this crop, grown mainly in Ontario, may amount to 441,500 acres, a slight increase over 1956, but 14 per cent above the five-year average.

Flaxseed. The indicated acreage is 3.6 million acres, an increase of 16 per cent from last year and 189 per cent from the five-year average.

Rapeseed. Prospective acreage may rise to 607,500 acres, a jump of 70 per cent from 1956. However, the ability to obtain contracts may influence actual seedings considerably.

Mustard Seed. A record of 175,300 acres may be seeded to this crop, a rise of 28 per cent from 1956. Contracts may again influence actual seedings.

Soybeans. Intended acreage may decline to 217,000 acres because of a possible decrease of five per cent in Ontario.

Potatoes. The all-Canada total, currently placed at 304,400 acres, is virtually unchanged from 1956, and about six per cent below the 1951-55 average of 323,000 acres. V

Brucellosis Eradication Program

IT has been announced that a comprehensive program of area testing and eradication of brucellosis or Bang's disease of cattle will be entered into by the Canada Department of Agriculture.

Losses from the disease, a bacterial infection causing abortions in cattle, are estimated to cost Canadian cattlemen \$9 million annually.

The program will be similar to the one which has been successfully applied in the virtual eradication of tuberculosis from Canadian cattle. An area will be accepted under the program, on the recommendation of a provincial department of agriculture. All susceptible cattle in the area will be tested and infected animals will be disposed of, with compensation paid to the owners.

A joint federal-provincial policy of calfhood vaccination against brucellosis has been in effect since 1950. This, along with several provincial control programs, is considered to have reduced the incidence of the disease to the point where a national program is now feasible.

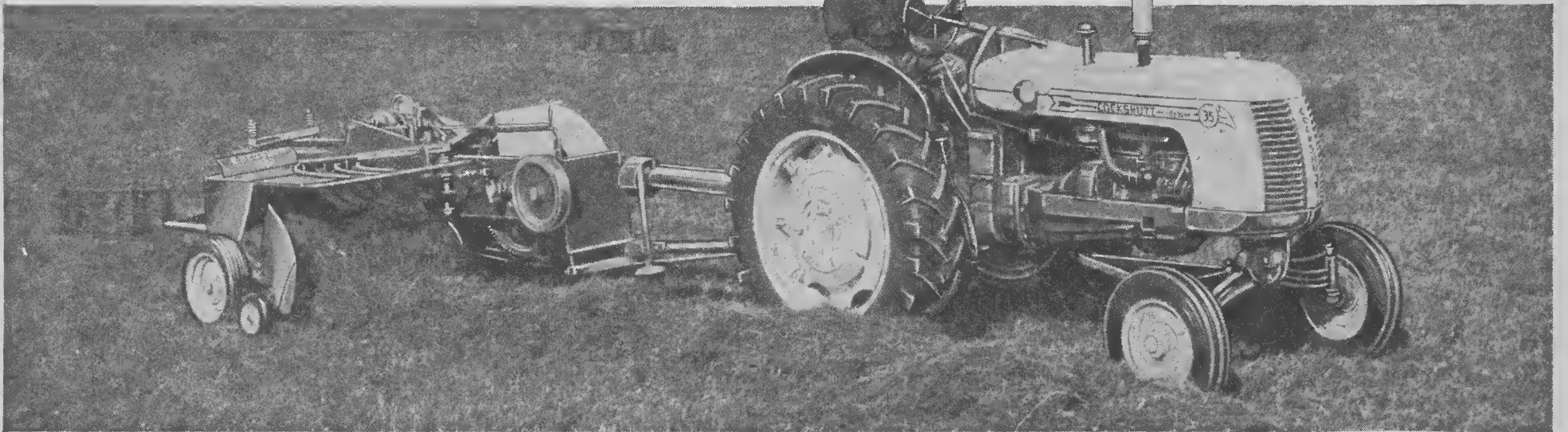
The program, in addition to reducing losses from the disease at home, will strengthen the position of Canadian cattle exporters in foreign markets, which increasingly are requiring freedom from brucellosis in their cattle imports. V

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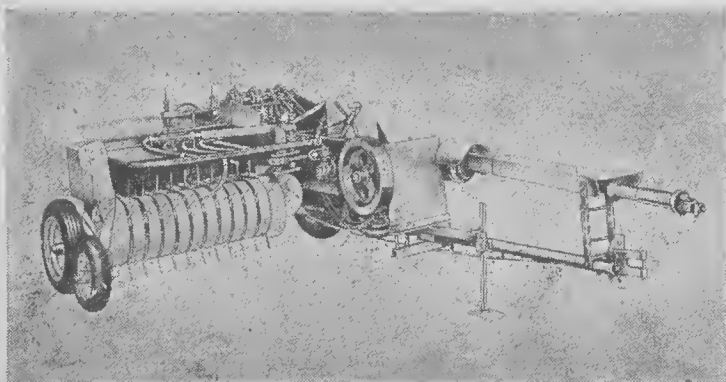
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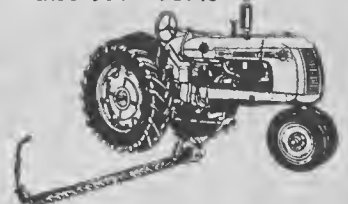
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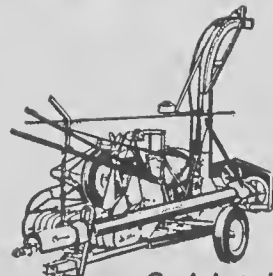
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made in Canada by Canadians
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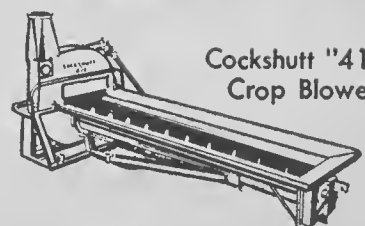
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Inco Research helps Canada grow



Last October, with spring coming on in Little America, thirty-eight massive sleds began snaking their way across shelf ice, carrying hundreds of tons of supplies on a rigorous

600-mile trek to a U.S. geophysical expedition at an outpost near the South Pole. The sleds were especially designed and built right here in Canada. Essential parts of the sleds are

made of ductile iron, a relatively new alloy developed by Inco metallurgists after years of research. These ductile iron parts have withstood the severe Antarctic conditions in fine style.

Lifeline for Antarctic Expedition

Ductile iron, a research development of Inco, is used for parts on Canadian-made sleds carrying supplies to South Pole.



For generations, metallurgists and foundrymen had been trying to develop a metal as strong as steel and as easy to cast as ordinary grey iron.

After years of research, Inco metallurgists came up with the answer in the development of ductile iron.

Ductile iron is a type of cast iron that can be twisted and bent without breaking. It has many other remarkable characteristics. For example, in these heavy duty sleds, used by the South Pole

expedition, the ductile iron parts withstand heavy stresses at temperatures as low as 70° below zero F.

Ductile iron is only one of many important products developed by Inco research. For research is as much a part of Inco's operations as the production of metals.

Through research, Inco helps stimulate the growth of Canadian industry and provides jobs in Canada.



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Sanctuary for Honkers

Thanks to Alf Hole who for more than a quarter - century has befriended them, the Canada goose has now been guaranteed a sanctuary in perpetuity by the Manitoba Government.

by ANNA TILLENUS



Alf Hole founded the wild goose breeding sanctuary located near Rennie, Manitoba.

EACH spring for the past 20 years, more than 500 greyish-buff Canada geese have come beating their way northward, over an invisible 3,000-mile route, to locate unerringly the Alfred E. Hole Wild Goose Breeding Sanctuary, on tiny Lake Rennie in Manitoba's Whiteshell area.

Shoulder to shoulder, the big honkers fight their way up from the south, through snow and rain, fierce heat and hurricane winds, to reach this familiar spot where they were born and learned to swim. Here these wary birds build nests, raise their young, and impart to them the hard-won knowledge of how to survive in a world beset with danger. Then, with the first chill days of autumn, the wild geese become restless: the mysterious urge to migrate again takes hold of them and draws them, unresisting, back to southern wintering grounds in North Carolina or Louisiana.

To the average citizen, the Canada goose is a ghostly bird whose spine-tingling clamor floats out of the night during the regular spring and fall migrations. To Alf Hole, who has befriended and studied wild geese for more than a quarter of a century, these magnificent birds are the embodiment of courage, devotion and wisdom.

His wild goose sanctuary was not a planned venture. It all started when a railroad worker at Rennie found four baby goslings near the tracks. He couldn't locate the female goose; and because dogs were roaming the area, he promptly carried off the four balls of golden fuzz to Alf's house, to be cared for. Reluctantly, Alf accepted the protesting goslings.

"It was a night and day job for a while," he recalls. "You have to get up at three in the morning to feed goslings—they eat all the time!" But they all survived. He pinioned their wings and kept them over two winters. A year later he was able to get, from a park, an old gander that couldn't fly. The gander mated with the lone female of the clutch; and wouldn't let Alf come close to either him or his young mate.

AT the foot of a small bush the goose built a large nest of sticks and reeds, lined with down from her breast. For the next 28 days, while she incubated the eggs, the old gander stood stiffly on guard, and any intruder was met by a hissing, feathered demon, with flailing wings and sharp, snapping bill. "He literally starved himself in fierce, devoted protection of his mate and her nest," Alf declared.

Four goslings were hatched from the pale, greenish eggs; and with the old gander in the lead and the female in the rear, made their way to the water and swam off, flotilla fashion, the proud anxious parents alert to all danger. The goslings had to be taught how to drink, and how to tear up grass and the succulent roots of rushes; and

to get plenty of sand to aid in digestion. They learned, too, that eternal vigilance is the price of life. Eagles, great horned owls, sharp-toothed pike, mink, foxes,—even prairie fires—, take a heavy toll of the unwary. With some assistance, Alf was able to band the goslings, using the official, lightweight, aluminium strips issued to qualified bird banders on this continent, by the U.S. Fish and Wildlife Service at Washington.

Later in the summer, the full-grown goslings began to fly far afield and became strong on the wing. They were feeding up, as well, on an abundance of grass, berries and aquatic plants, in preparation for the long journey south. In the fall, when succeeding waves of migrating geese passed over Lake Rennie, the restless birds, unable to resist any longer, shot into the air, honking wildly. They joined a flock veering southward, leaving their sorrowful parents earthbound.

It was with some anxiety that Alf saw the young birds take off. An ardent hunter, he knew all too well the perils of that journey, during which the geese must run the gauntlet of thousands of gunners stationed along every mile of the long route. He



[Ducks Unlimited photos]

The gander guards the nest closely during the breeding season. This Canada goose leaves no reason to doubt it.

could hardly hope that they would return. Nevertheless, they did. The next spring, before the ice had all cleared from the lake, they flew in, each wearing the identifying aluminum band on its leg. From then on, they returned faithfully each spring to the peaceful surroundings of Alf's home overlooking Lake Rennie. Through the years they brought their mates and raised their young until his flock multiplied many times.

THERE is no sight to compare with a lofty wedge of Canadas silhouetted against a flaming prairie sunset. When their high-pitched music is heard overhead, involuntarily we look up. They are the most widely distributed waterfowl on the continent; and if not cut off in their (Please turn to page 73)



A family of geese sets sail with the gander out in front and mother guarding the rear. The Alfred E. Hole Wild Goose Breeding Sanctuary, founded by chance, became the responsibility of the Government of Manitoba in 1954.

INGENUITY PLUS

“WHAT don't you like about your loafing barn?” The farmer who had been proudly showing the strangers around his new loose-housing layout was rather taken aback at this. It sounded a bit like asking famous miler John Landy, “what held you up?”, just after he'd set a new world record. But the visitors weren't asking questions for the fun of it.

“Well,” the farmer scratched his head reflectively, “I guess I've been too busy showing it off to take much note of that. Come to think of it, though, if I were building it over again, I'd figure some way to cut the labor of hauling hay to that self-feeder.”

The Froese brothers made a note of this, thanked their host, and drove on, their destination, another new loose-housing unit farther south. Their aim was the most efficient small dairy layout they could devise, but before final plans were drawn up for their own building, one or more of the four Froeses had travelled over 800 miles on their personal farm-to-farm tour.

In this day of declining mixed farms and increased specialization, the Froeses have come up with a highly specialized mixed farm: where the farm business is replacing the family farm, they have a successful family-farm business. Located along the Waterton River, south of Pincher Creek, Alberta, the Froese farm is a four-way enterprise producing pork, beef, grain, and milk, with an occasional sideline, such as grass seed, when crop and market conditions are favorable.

Frank Froese is in charge of the hogs, Henry and Bruno run the dairy and beef cattle section, and Kurt looks after the machine shop. All four brothers combine operations for the production of forage crops and grain. That very necessary feature of every business, bookkeeping, is ably handled by Mrs. Bruno Froese.

“We decided to stick together so as to pool our labor and overhead,” Kurt explained. “In the over-all operation, I think we've succeeded in keeping the efficiency of a specialized farm by our system of specialized branches.

Specialization tends to replace the mixed family farm, but the Froese family have specialized their mixed farming business.

by C. V. FAULKNER



Each member of the Froese family has his particular job on the farm. This picture shows (l. to r.) Bruno, his wife, Henry, Frank, Kurt and his wife.

That way we avoid the old pitfall of having all our eggs in one basket. Our combined annual income hasn't varied much over the past ten years, in spite of the wide fluctuation of some farm prices. Of course, like all enterprises, this one of ours wouldn't get very far without careful planning.”

THE care used in designing a dairy barn layout is a case in point. When they had assembled all of their information, the brothers decided on a 40' x 70' quonset-type, wood-frame structure, covered with a sheathing of aluminum. By renting a small sawmill, they were able to keep their lumber costs down to about \$500, and a similar sum was spent for metal sheeting used to cover the frame.

At the front end of the quonset, a ten-foot portion of the building has

been completely partitioned off, to form a milking parlor and cooling room. Cows enter and leave the three-stalled parlor through stairways cut in the partition. While being milked, they are fed grain from a 2,000-bushel granary located in the loft above the parlor. Grain moves by gravity down through a pulverizing oat-roller to a feed bin below, where it is within easy reach to fill the metal feed boxes fastened to each of the eight-foot stalls. The cooling room contains wash tanks, can racks, and a cooling tank. Water for cooling later goes to a stock drinking cup in the feeding area at the rear.

The remaining 60 feet of the quonset contains the feeding section mentioned, and a 28-foot-wide loafing area. These are divided by a slat fence, which is held in place by long

two-by-fours, fastened to the rafters overhead with swivel bolts. This allows the fence to give, if the animals press against it. When first built, it was rigid, and was broken about once a week.

Hay and bedding is stored above the feeding and loafing areas, respectively, in the bulges of the quonset. This is kept in place by a unique tent-like, or inverted “V” arrangement of the boards that form the ceiling. Lighting is provided by a row of windows at the apex of the roof. On the feeding side, hay is gravity-fed through an opening at the foot of the wall, into a 52-foot-long manger; and a similar opening in the other wall provides bedding whenever it is needed. The loafing area is bedded down once a day, and the bedding side about twice a week.

When the quonset was finished, the brothers found that the bulge above the feeding area held a six-month supply of hay. By removing the sheeting on that side of the building and adding an 8' x 12' x 54' annex, they were able to double the feed capacity of this loft. Another improvement was to build calf pens in the waste space between the steps leading to and from the milking-parlor gates; and the walls of these pens were made so they could be unhooked and lifted out to aid cleaning.

The result has been described by experts as “one of the most efficient loose-housing units in the West.”

THIS efficiency doesn't end with the dairy enterprise. It can be found all over the Froese farm—even in the homes. There are two modern houses on the place, to accommodate the families of the two younger brothers, Bruno and Kurt (Bruno has two girls and a boy, and Kurt, two boys and a girl). One of the two older brothers lives with each of the married ones, and both houses are heated by a single unit.

Using pulverized coal, which they haul from a nearby mine, the brothers have been able to heat both houses, for about \$60 a year. They've accomplished this with a heat-utilizing gadget made in their own machine



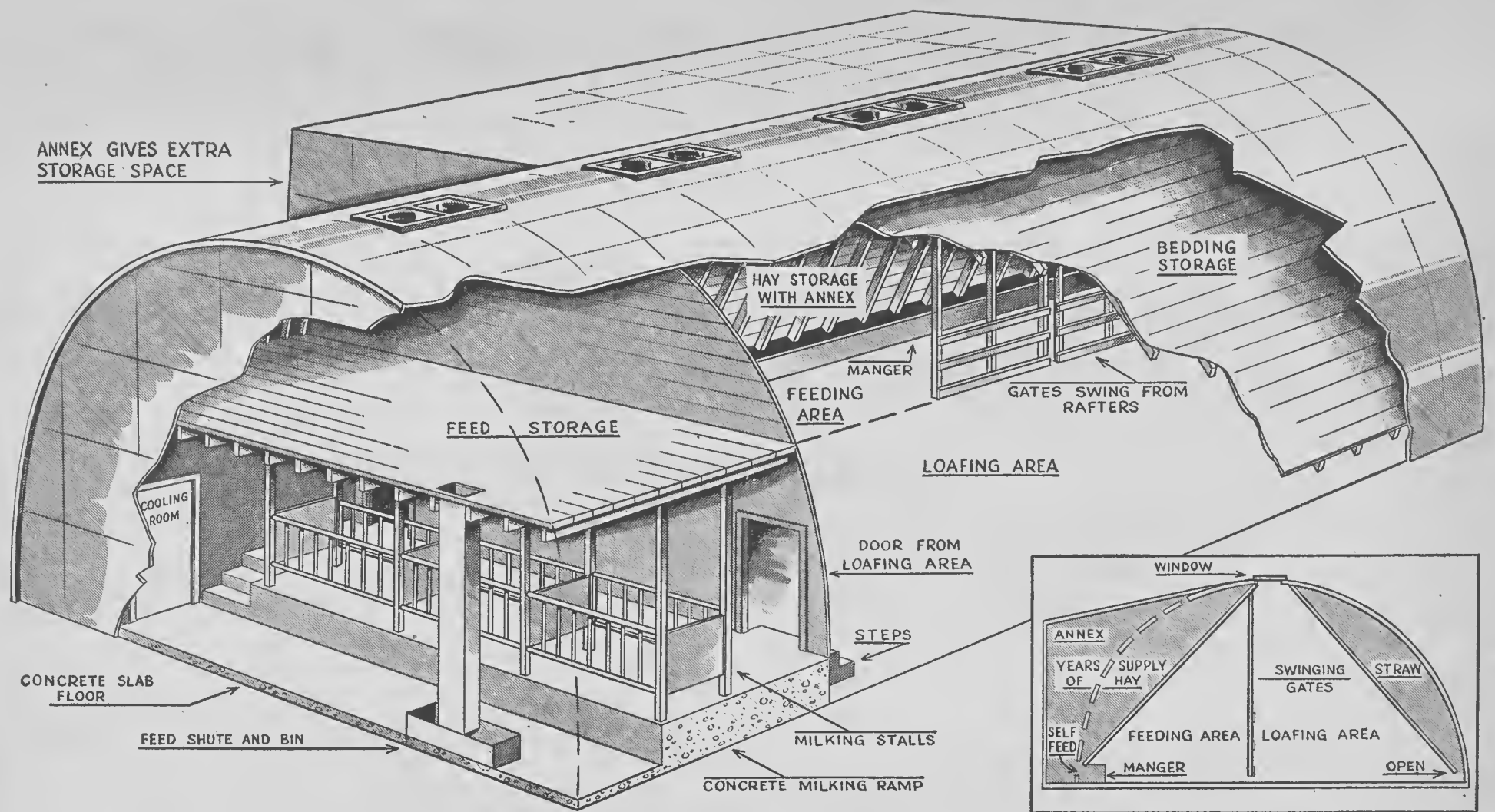
Bruno unloads grain into a mill, which grinds and blows feed into the loft of the pig barn.



Kurt removes feed from a bin beside the revolving feed mixer they made in their own workshop.



The farm workshop was put to use also in making metal milk-parlor stalls from piping worth \$36.



In this sketch of the barn, parts of the wall have been cut away to show the layout. The feed storage area above the milking parlor is for grain. Wide doorways lead into the loafing and feeding areas at the far end of the barn, giving easy access for barn cleaning and other operations with a tractor and loader.

shop, that enables them to get the maximum amount of heat from the coal. This is a sort of drum-within-a-drum arrangement, where the firebox is completely surrounded by water. Instead of the usual water heating system whereby a coil is immersed in a fire, it allows the fire to be entirely surrounded by water, so that all the heat produced is used.

This is only one of the many devices that illustrate how much importance the Froeses attach to their farm machine shop. It has a full line of tools, a lathe, an electro-welding outfit, and, in case of power failure, a standby generator. When snow came last fall, it interrupted work on a spanking new shop, which is now scheduled to be completed some time this summer.

"Machines and equipment are our big weakness," Kurt smiled. "We like to try everything new that comes along. Whenever possible, however, we make our own."

Another handy gadget built in the shop, is a revolving feed mixer made from an oil drum. This is mounted between two feed bins in the hog barn (one for young pigs, and the other for sows); and can be dumped either way, depending on the feed being mixed. The milking parlor stalls were also made there, from scrap piping bought in Lethbridge for \$36. An equipment company offered to install a similar unit for \$600. Other shop jobs include large-capacity, plywood-walled forage wagons, dumping devices on feed trucks, a home-made bulldozer for earth and snow removal, and many more.

Speaking of equipment, last year the Froese brothers heard about a mining company that was going under the block in Vancouver, and one of the items for sale was an almost new tractor. To save the \$400 it would take to ship the machine to Alberta, Kurt went out and drove it

back over the mountains. He recommends this trip for tourists who really want to take time to see the country.

The partners are as susceptible to progressive ideas on farm management, as they are to new gadgets. A prime example, is the way they use their feed to the best advantage. If one grain field is weedier than the others, that crop goes into silage. By the use of a self-feeder, the dairy cows get their pick of this; and what they reject, such as silage from the top and sides, goes to the beef herd. Beef animals get a mixture of silage and oat straw, but as calving time approaches, the straw ration is gradually decreased until they are receiving straight hay.

(The floor of the 264-ton bunker silo at the home farm (another one is located on property farther away) is worth special mention. This has been paved with round cedar telephone pole ends trucked in from nearby British Columbia. A waste product of the pole industry, these were obtained for not much more than the cost of hauling. Slated for this year, is an overhead trolley to carry rejected silage over to the beef fattening corral).

Pig rations consist of chopped alfalfa and ground grain for the young stock, and baled alfalfa and grain for the sows. The oat huller is located so that the hulls blow into a feeder as supplementary rations for the dairy cows.

Located just east of the dairy and beef yards, the hog enterprise consists of a pen for brood sows, and a long aluminum shed housing feeder pigs and farrowing pens. Alfalfa and ground grain are stored overhead in the loft and flow by gravity, when needed, to replenish the feed bins below.

The brothers try to balance their livestock, in order to have about 30

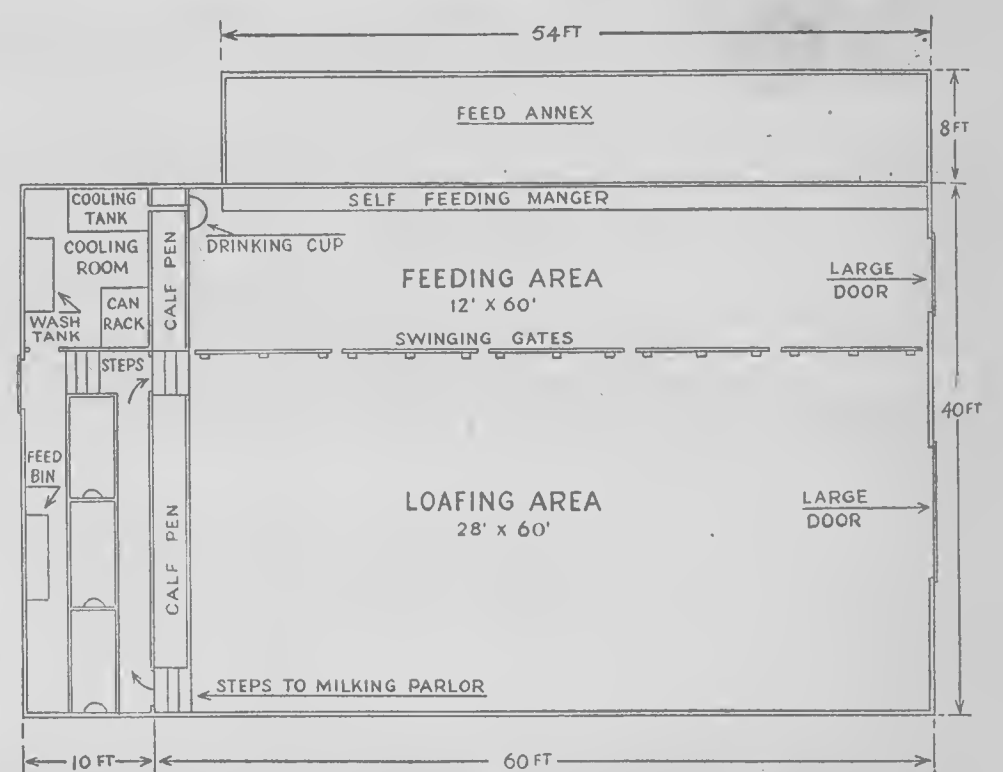
mature beef animals (Angus and Herefords) and 30 dairy cows (Holsteins) for breeding purposes. A year-round operation, the swine herd averages about 200 head, and provides about 50 per cent of the total farm income.

In all, the brothers farm about seven quarter-sections. Grain acreage last year consisted of 140 acres in fall wheat, 20 acres in spring wheat, 105 acres in oats, and 110 acres in a barley-Garnet wheat mixture destined for pig feed. (Barley alone doesn't yield well on this land.) There are 320 acres of rough, native pasture, 20 acres of cultivated pasture (experimental) and 80 acres of wild hay. Cultivated hay totals about 75 acres, of which 35 acres is timothy (harvested for seed in favorable years), 20 acres of alfalfa, and another 20 acres of alfalfa and brome. The remaining

250 acres are summerfallowed, although 50 acres of this are first sown to oats to provide a green silage crop.

Before leaving the Froeses, The Country Guide asked the inevitable question, "Now that you've finished it, what don't you like about your own dairy barn?"

"Who says we've finished?" Kurt answered. "For one thing, we're going to install a proper ventilator in the roof. Then, I think, we'll sheath those metal walls with wood, to cut down on condensation during the winter. And, of course, those stairs in the milking parlor will have to go, so we can put in a pipeline milker. I guess we'll keep right on making improvements whenever we hear, or think of them. I don't think there'll ever be such a thing as a perfect barn, or what would a farmer have to live for?"



Floor plan of the Froese barn. The milking parlor is on the left, between the calf pen and the front wall. Straw is stored above the loafing area in the wall bulge.

Beef Feeding Up-To-Date



Kelso Simpson of Ridgetown, Ontario, has brought beef feeding up-to-date by feeding more calves and fewer yearlings, more roughage and less grain, feeding all year-round and weighing them regularly.

INSTALL a set of weigh scales on a beef feedlot farm and there is no telling where it will lead. Kelso Simpson, at Ridgetown, in southwestern Ontario, is taking the facts that come from weighing steers regularly, and turning his feedlot program right around—for the simple purpose of making it pay.

A generation ago, his farm was turning off one lot of big steers each year, following the old winter-feeding program to use up cash crop refuse early, and finishing the cattle on just about unlimited grain-feeding. That program turned out high-quality butcher cattle. Under today's low-margin program, the profit from such operations would be pretty slim.

In those days you couldn't find one record book on a hundred farms. Now that the Simpson steers are weighed regularly, the records have pushed the old program out the window.

He is feeding more calves instead of yearlings, because they make cheaper gains. Also, he is feeding more roughage and less grain, to cut costs. Instead of the old one-shot feeding program, with a big unloading in the spring, he is swinging to a year-round enterprise, with four or five lots to sell each year.

Kelso installed the scales in January, 1956, a second-hand set, built into an 8 by 16-foot pit, dug just outside a pen in the barn. He weighs cattle on Saturdays when the children are home to help, and he can run the entire group over the scales (about 240 head), from three separate sets of buildings, in half a day. He is even breaking in a pony to help herd the cattle—something of an oddity as yet, in Ontario. He keeps the results handy, in a notebook in his overall pocket, for ready reference.

His first discovery was that feeding yearlings had some decided disadvantages, as compared with calves.

"I had 104 calves in one pen, and 50 long yearlings in another," he explained. Each pen was getting 2,900 pounds of grain per week, as well as hay and silage, free choice. "That meant about eight pounds of grain per day for the calves, and 16 for the yearlings. But each calf was gaining as much as each yearling, which meant cheaper gains from the calves."

It almost settled him against yearlings, but another pen told a slightly different story.

"I put 12 or 14 pounds of grain into another lot of yearlings," he said, "and got better gains and a faster finish on them. The second lot were a better kind of cattle."

"I need a good quality calf for low-cost feeding. It takes too much grain to head off the growth of plain steers, and makes them fatten. Those good

steers last year, on 14 pounds of grain per day (a mix of 300 pounds wheat, 1,500 pounds of corn-and-cob-meal, plus some beef supplement), gained two and one-half pounds per day for 70 days."

This year, he swung from a medium class of yearlings to a good class of calves—75 Mormon Church calves—and hopes the good breeding will make better gains possible with less grain and more roughage.

Practical experience has turned him to his year-round steer feeding too. In 1955, the spring market was good. In 1956, he finished cattle for the same market and the result was disastrous. So this year, of his 189 calves, the top 24 are being fattened for

Why Kelso Simpson switched from one lot of steers to year-round selling

by DON BARON

spring market. Twenty-five will be ready to sell as grassers. He is feeding 25 more on contract, for the gain; and 50 more will go to summer feedlot, getting plenty of hay and silage, with four or five pounds of grain until July, and then 12-14 pounds for 70 days. The rest will run on pasture over summer and come in for fall feeding. That will give him a cross-section of most beef-markets for the year.

This cash-crop farmer doesn't cash-crop his 300 acres of land at all now. Grain corn, coarse grains, pasture and hay are the only crops he grows, and every bit of them is sold through cattle and hogs—he says that he cuts hog feeding costs by a third, by running pigs after the steers.

Mr. Simpson's feeding operation is also streamlined. One man can look after the 240 head of cattle over winter. A big factor then is his self-feeding bunker silos for some cattle. And since he is of an inquisitive nature, he is trying stilbestrol this winter on most of the cattle, but has withheld it from one lot, as a check on the others. V

Selling Made the Difference

FARMERS in the Lower St. John River Valley, around the New Brunswick capital of Fredericton, were casting some puzzled glances at the big Maritime market for fruits and vegetables a few years ago. It offered them high dollar income from limited acreage—if they could get it. Growers had the benefit of some tariff protection against U.S. produce too. But the imported stuff came in graded, washed, packed and appealing, and often could sell rings around their own field-run produce.

The growers turned to the Capital Co-operative Ltd. formed some years earlier, and found that it was ready to do a job for them. Five years ago, it began freezing strawberries and found the demand so great that, despite last year's short season, it put up 120,000 packages. It imported berries from as far away as Poland, to boost its jam production to meet local needs.

The Co-op handles other fresh fruits and vegetables now, too,—peas, beans, raspberries and blueberries. It is even pioneering in a unique local product, a type of fern that grows on the islands of the Lower St. John River and along the north shore of the province. This plant is frozen as "fiddleheads" and sells as a real food delicacy.

The fruit and vegetable end of the business is now growing so fast that a new wing is being added to the red brick main building, to double the freezing and processing capacity. Then, they will be able to handle fruits and vegetables fresh in the early season and freeze the surplus of the later run, thus providing a price cushion for the crop.

ONE of the keys to success so far has been good management. Youthful, but business-like Ralph Burtt is providing that. Support comes from 1,200 shareholders and another 1,000 patrons.

Co-operation put these New Brunswick farmers on the road to better incomes

And from a business that turned over \$387,000 the year before it was incorporated in 1944, it had pushed its sales above \$2 million in 1956.

It has developed volume by handling just about everything that farmers buy or sell. The Co-op makes butter and ice cream, as well as processed milk and cottage cheese. It now has the largest egg-grading station in New Brunswick, and has supplemented it with a poultry killing plant. It freezes, or cans, fish, peas, pickles, and chicken, in addition to making jams.

It has a sizable feed and fertilizer department; assists members with a hospital, medical and surgical insurance plan; (Please turn to page 79)



The modern offices and plant of the Capital Co-operative Ltd., are at Fredericton, New Brunswick.

In the relatively dry Brown and Dark Brown soil zones of the prairie provinces, good management is aimed at the need to

SAVE MOISTURE

by J. L. DOUGHTY

THE frequent reports in the press and on the radio, of the severe drought in the Mid-Western States, and the gradual northward extension of the devastated area, have raised the question in western Canada of "Are we next?" Perhaps it would be more logical to ask, "When will climatic conditions return to normal in the prairie areas?" since precipitation has been above normal for the past six or seven years.

The native vegetation of the Brown and Dark Brown soil zones, which has developed during the past thousands of years, is indicative of a low precipitation. The soil profiles have the definite characteristics associated with low precipitation and high evaporation. To add to Nature's records of climatic conditions, there are the meteorological records for the past 70 to 80 years. All indicate that years of low precipitation are the rule, rather than the exception.

Meteorological records for Swift Current, Sask., which can be considered as representative of the Brown soil zone, show that the annual precipitation for the six-year period 1950-55 was above the mean. This was the only period in the past 71 years, when there were more than three consecutive years with above-average precipitation. The precipitation for 1956 was slightly below the mean, which may indicate the turning point.

THE general public is inclined to associate the term *drought* with such things as crop failure, soil drifting, starving cattle and destitute farmers. These are the conditions that lead to the proclamation of a disaster area, or a state of emergency. Fortunately, most drought periods are broken before such conditions develop.

The term drought, as used by the agricultural scientist, designates a period of time during the growing season when the potential yield of a crop is reduced, due to insufficient soil moisture. A drought period begins when the available soil moisture in the root zone has been reduced to a

point where the plant roots are unable to obtain sufficient moisture to maintain the normal transpiration and growth of the plant. The onset of a drought period can vary from field to field, depending on the amount of soil moisture present and the kind of crop. Thus any period of time when a crop deteriorated due to a lack of soil moisture, would be designated a drought period for that particular crop. Very few crops in the prairie area reach maturity without being subject to drought at some stage of growth. The farmer is always faced with the prospect of a limited supply of moisture; and it is to partially offset this hazard that the practice of summerfallowing has been adopted.

The reliability of weather forecasting has increased materially during the past 10 to 15 years, but as yet completely reliable forecasts cannot be made for periods of more than a week or ten days. Likewise, cloud seeding or rain-making offers no definite assurance that the precipitation can be significantly increased under the climatic conditions of the Canadian prairies. Periods of drought must be expected.

Detailed investigations conducted by the Soil Research Laboratory over the past 20 years show that, as an average, 10.5 inches of water are required to produce a 14-bushel crop of wheat. This represents water transpired by the plant, and lost from the soil by evaporation during the growing season. If a crop has access to more than 10.5 inches of water, an increase of five to six bushels per acre can be expected for each extra inch. However, if less than 10.5 inches are available, a rapid decrease in yield will result, with a crop failure when only five or six inches of water are available for plant use. While the above data were collected from field projects within a radius of 150 miles of Swift Current, they are considered representative of conditions in the Brown soil zone.

The mean precipitation at Swift Current for the months of May, June and July is approximately

[Gulde photo]
Only once in 71 years has the Brown soil zone had above average moisture for more than three successive years.

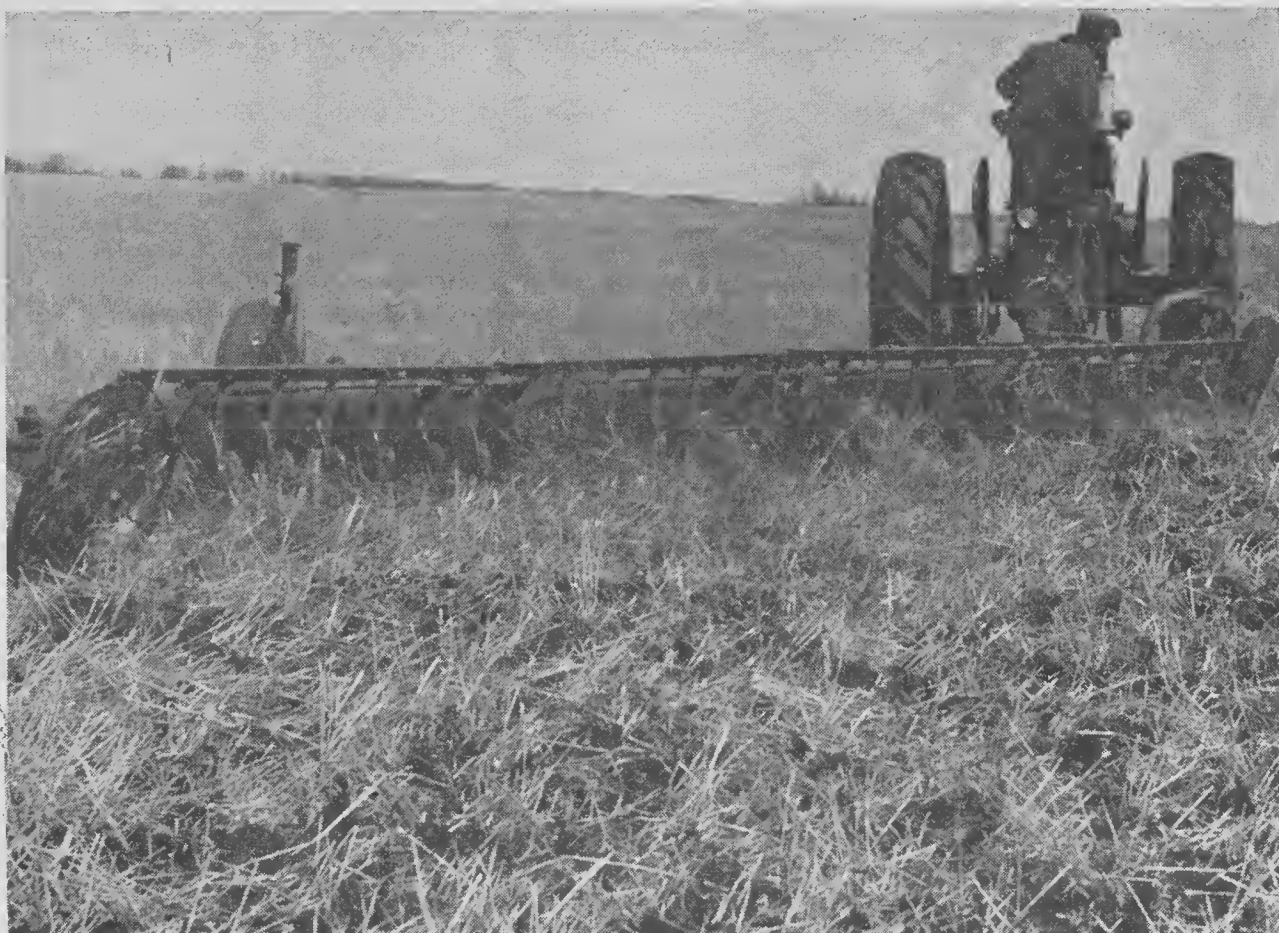
seven inches, but only in 31 of the past 71 years has the rainfall been equal to, or above, this amount. A detailed survey extending over the past 20 years, and covering a wide range of soils, shows that fallowed fields contained just over four inches of available moisture in the upper four feet, at seeding time. These were fields where a good job of summerfallowing had been done. The average stored moisture, plus the average rainfall for May, June and July, is sufficient for a 14- to 15-bushel crop of wheat, which is very close to the long-term yield for the area under consideration.

CEREAL crops in these soil zones are very dependent on the stored moisture at seeding time, for there is seldom sufficient rainfall during the growing season for good crop production. Crops on fallowed land obtain 40 to 50 per cent, or more, of the moisture used, from the amount present in the soil at seeding time. Crops on land that was cropped the previous year tend to suffer more from a lack of seasonal precipitation, than crops on fallowed land, because they normally contain less stored moisture. If the soil is not moist to a depth of 18 to 20 inches—which indicates about three inches of available moisture—the chances of harvesting a profitable crop are very poor. Above-normal precipitation will be required to make up the deficit. The *distribution* of the seasonal precipitation may have more influence on total yield than the amount.

The farmer would be well advised to make a careful survey of soil moisture conditions at seeding time and plan his seeding program accordingly. Summerfallowing is the best—though an inefficient—way of increasing the amount of stored moisture. The four inches of stored moisture found in fallowed fields represents only 21 per cent of the mean precipitation during the 21-month fallow period.

Soil erosion by wind, and drought periods, are frequently associated, but soil does not drift just because it is dry. Erosion by wind may occur when the soil is moist close to the surface, or even when the land is frozen. Soils drift because they have been finely pulverized and left exposed to the force of the wind. A wind speed of 13 to 15 miles per hour, at a height of one foot, is required to start movement of soil particles in a field that is highly erosive. Any surface condition such as a trash cover, clods, ridges and furrows, or vegetation, that will reduce the surface wind velocity, or trap moving soil particles, reduces the danger of erosion.

(Please turn to page 75)



[Neil C. McKinnon photo]
Because the growing season seldom produces enough rainfall for good crop production, summerfallowing has been widely adopted. Maintaining a trash cover, shown above, will help to cut down soil erosion.

Day of Accomplishment

by FRANK BENNETT

STOOPED, gaunt, hollow-eyed, the Old Man stood on the front porch of the big white house in the warm morning sunshine, his thin, blue-veined hands braced against the white wooden railing. Watching the falling brown leaves of a big elm twist toward the ground, he thought unhappily, "There's going to be a change in the weather."

There were not many days, good or bad, left for him, and he knew it. He was not well anymore; he always felt tired. For a long time, so it seemed to him, he had not been able to get around much. In fact, he had not wanted to go any place for a long time. Frowning, he lifted a hand and smoothed down the long white beard, which he somehow managed to keep spotlessly clean. He thought a little sadly, "This may be the last fine fall day of the year."

Then he remembered that this was the day when his family was going to leave him alone. It had been a long time since he had had a day to himself, and he thought, "Today, I ought to do something." He stared at the big red barns and the two concrete silos, dazzling white in the sunlight. He thought, "Today will likely be my last chance to walk the old trails for a long time. Maybe, forever."

The bright ring of the telephone cut across his thinking, and he heard his granddaughter say, "I'll get it, Mother," and his smile deepened. All week, Johanna had been running to answer the phone, hoping in her heart that it would be Cal Tracy calling.

The Old Man listened to the click of her quick steps along the hall and hoped that this time Cal had called. Of all his family, Johanna was his favorite, and she was in love with Cal, and Cal was

right for her, as the Old Man himself had been right for her grandmother, Ann, many, many long years ago. Johanna at twenty was so much like Ann had been at twenty that, looking at the girl, the Old Man sometimes believed that Ann had come back to look after him. But, of course, such thinking was childish.

"Hello," he heard the girl say, her voice warm and clear. But when she next spoke, he knew that Cal Tracy had not phoned. "Just a moment," the girl said, her voice lifeless. Then, loudly, "Tommy, it's for you."

Feeling unhappy for her, the Old Man listened to young Tommy's shuffling steps. "Hi," Tommy said. "Oh, Hello, Biff . . . I don't know. I'll have to ask Dad. Hold on a minute, and . . ."

The door opened behind the Old Man, and Johanna said, "Are you enjoying the sun this morning, Grandpa?"

He turned stiffly to let his eyes rest on her. She was a startlingly pretty girl with drawn features and a lovely niceness of lines in the rounded curves

As time passed, the younger man had gradually taken over the management of the entire place, which was as it should be.

At fifty, John Dodge was a tall, quick-moving man who had found success and a great contentment in life. "How're you feeling this morning, Tom?" he asked the Old Man; and looking at him thought sadly, "He's failed fast this year. He won't be with us much longer."

"A mite stiff in the joints," the Old Man answered.

Emma came to the doorway and asked, "John, aren't you ready to go?" John nodded and swept his big hat from his greying hair. "As soon as I wash up and get some other clothes."

Emma stepped out on the porch. A small, thin woman who herself had aged by working too hard, she was dressed in the black silk dress which she had made especially to wear to the fair.

"Pa," she said, touching his arm to make sure of his attention, "your lunch is on the kitchen table. Sandwiches all made. Cake cut. Coffee in the thermos. You won't have to do a thing."

"I'll get along all right," he said.

(Please turn to page 51)



Wandering alone in the past, the Old Man found words that had to be said and courage to say them

Illustrated by J. H. Petrie



of her slender body. She was looking beyond him toward the crowded highway, and he knew that she did not really expect an answer from him. That was one of the things about being old: when the young spoke to you, it seldom made any real difference whether or not you spoke in return.

"Mom," Tommy was saying inside the house, "do you suppose Dad would let me have the car tonight?"

"You'll have to ask him," Emma answered in a tired voice.

Johanna had stepped down into the big yard, and the sun tangled with her coppery hair, giving it an intensely alive look. Watching her the Old Man thought, "She's too young and pretty to be unhappy like this. I've got to have a talk with Cal Tracy."

The Old Man shifted his position a little to put himself more fully in the sun and relit his clay pipe with thin, unsteady hands. He saw John Dodge, his son-in-law, coming toward the house from the cattle barn and thought with satisfaction how John was good for the land and how the land had been good to John.

A BEWILDERED young man in his twenties, John Dodge, had come from the city which he hated, to work for the Old Man during the harvest season. They had found a mutual liking and respect for each other, and the Old Man had kept the young man on at the farm by letting him work forty acres, rent free. Three years later, with money in the bank and a team and a plow of his own and a new belief in his own worth, John had married Emma, the Old Man's only living child.

The door opened behind the Old Man. Johanna said, "Are you enjoying the sun this morning, Grandpa?"





Bliss Briggs boils the sap down in a 15-foot evaporator, burning about 20 cords of old maple logs in the syrup-making process.



The trails used by the horse-drawn gathering tanks are kept cleared and trimmed. Sugaring-off time begins in mid-March, and culminates in an open house at Easter.

When the days are warm, and the nights are frosty, and "the sap's runnin'," everyone in maple syrup country looks forward to

Sugaring-Off Time

by VERA L. DAYE

ABOUT 18 miles from Moncton, New Brunswick, deep in the hills guarding the approaches to Fundy, the communities of Elgin and Mapleton are the headquarters for a nation-wide product. There, families like the Steeves, Colpitts and the Hoppers have been augmenting their farm earnings for generations, with a one-month cash crop, the maple sugar harvest.

Some have maple woods with more than 5,000 trees producing two tons of maple sugar every season. Multiply this by the 15 or so camps scattered throughout the area and you'll have a rough idea of the harvest from the sugar maples.

Almost directly opposite, and but eight miles from Moncton, along another range of hills known as Stilesville, a group of farmers cultivate more than 40,000 trees for their annual crop. Ten large sugar camps snuggle against the slopes, their locations revealed only by a vaporous haze, bluish-grey against the naked hardwoods.

Humming with activity by mid-March, and rising to a crescendo about three weeks later, the sugar harvest culminates each year in a neighborly open house during the Easter week-end. In the Elgin area, it's Easter Sunday. In Stilesville, Good Friday is the big day.

Monctonians, old and young, flock by the hundreds to the sugar woods, all eager to sample the delicious cream and sticky candy, which the camp bosses offer free of charge.

They come by car, truck, sleigh (when the snows are too deep), or by train, into the Elgin district, then trudge miles over snowy trails and across rickety bridges spanning gurgling brooks. All feel amply rewarded when they scrape handfuls of warm maple cream from huge wooden paddles.

LAST season our family joined the trek to the Stilesville camp operated by Bliss Briggs, one of the better known producers. We left early in the morning, expecting to watch the various steps and return in time for lunch.

Instead, Briggs told us it would take all morning to boil down the sap in his 15-foot evaporator, and the remainder of the day to sugar off and boil for candy. We stayed and were rescued from starvation only when Briggs and his wife, Vivian, boiled some fresh eggs for us, in the steaming, frothing sap.

Briggs, a sixth-generation resident who operates a 180-acre dairy farm, taps around 4,000 trees each year. Some of the maples are giants 300 to



400 years old, with the marks of previous tappings high in the trunks. Others are 25-year-old saplings filling their first buckets. The trees are slow growers, but seed and reproduce with seemingly little effort. Briggs and his helpers keep the undergrowth and evergreens well thinned out, and the trails plodded by the horse-drawn gathering tanks cleared and trimmed. Some seasons it is necessary for Briggs to snowshoe and pack a trail before the team can even start out.

Like the others, Briggs prepares for his important harvest as early as July by driving deep into the woods scouting for white birches. The bark peels from the trunks during a two-week period only. During this time the workers cut huge sheets, and stack them carefully away, until they can be cut into rectangular pieces about 6 by 10 inches, to make "barks."

Each afternoon during the actual producing season, the Briggs children and their mother, who teaches Grade VII in a Moncton city school, hike out to the sugar camp to complete the barks. Each piece is laid on a flat-topped "sugar stove" to make it warm and pliable. Then the ends are folded and tacked to make boat-shaped containers for the maple candy they sell in the city market each Saturday morning. We tried our hands at this, but found that it required a special knack to keep the bark from splitting.

During the morning we hugged the heat inside the camp, while the boys trudged the snow trails with the gathering tank crew. Sap from the storage tanks is fed by gravity flow into the evaporator. Watery and thin, it travelled from one set of galvanized trays to another, to grow thicker and darker over the roaring fire beneath.

Briggs told us that he burns an average of 20 cords of four-foot, old maple logs every season, to convert the sap into syrup at 220° F. Strained and cleaned from the time the sap is poured into the metal receiving tank, the final syrup is emptied through felt strainers to remove every vestige of sugar sand, before being bottled for market.

SYRUP for cream is boiled longer, to 235° F. Then it is poured into pans two by three feet, and set outside on beds of snow to cool. By early afternoon, when the camp workers were churning this mass round and round, up and over, with huge wooden paddles, the camp was beginning to echo with gay chatter as the visitors dropped in.

The thickening sugar turned gradually to soft brown cream. When it sliced like butter the men heaved the pan onto the flat-topped stove and stirred like demons. In a few minutes, the mass was soft, ready to ladle into half-pound and pound aluminum molds to harden overnight. As soon as the pan was empty, dozens of eager hands dived in, to scrape gobs of the rich sweetness from the bottom. Some knowing folk had brought along pickles which took away the saccharinity.

Presently, two husky men thrust a heavy pole under the handle of a gigantic iron cauldron filled with cooled, amber-clear maple syrup. Lugging their burden outside, they slung it from a cross-bar between two sturdy trees. Beneath, stacks of logs were ready to light. While the syrup was heating someone began to play a mouth organ. Boys whistled, girls sang, and children threw snowballs as they waited impatiently for the most important event of the day.

While the syrup was boiling to 275°, camp workers levelled off a 14-foot square of clean, fresh snow. The youngsters were shooed off as a hard-packed bed began to appear. Each time the bubbling syrup reached for the top of the cauldron the candy maker, an expert of many years, stood ready to shake in a few drops of rich cream. Instantly the frothing mass subsided. Briggs said it was a disgrace to let the candy burn. If that happens, folks say the maker "caught a bear's foot."

At long last a sample pitcherful was ladled out and poured over the waiting snow bed. The gleaming mass hardened almost instantly into sticky, brittle candy. Children, and grown-ups, too, clustered close for their share of the delicacy.

As the shadows lengthened, the bright clear day held promise of a frosty (Please turn to page 79)

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GET IT AT A GLANCE

Polled Herefords and Polled Shorthorns continued true to form by selling for considerable premiums over horned cattle at the Ontario spring bull sales. Nine polled White-faces averaged \$559, compared with the over-all average of \$450 for the entire 79 Herefords. Four polled Shorthorns averaged \$492 this year, \$80 better than the \$412 average made by all 72 Shorthorns auctioned. ✓

The cause of hail and its possible control will be subjected to close study by Canadian scientists in 1957. The announcement was made recently by Dr. N. Grace, director, Alberta Research Council, Edmonton. The research work will be conducted on a co-operative basis and will involve workers of the National Research Council, the Federal Department of Transport, the Alberta Research Council and McGill University. It is reported to be one of the most ambitious scientific projects ever undertaken in Canada. ✓

Australian farm income may rise by 9 to 12 per cent during the 1956-57 crop year, according to William McMahon, chairman, Australian Agricultural Council. A substantial rise in wool prices during the present season more than offset declines in income from other commodities. ✓

The Netherlands Government has submitted for parliamentary approval a revised farm policy designed to strengthen the farm sector of the economy and assure a reasonable level of farm income and wages. The new support measures provide for improved standards of remuneration to farm owners for their productive services, and investment in land and buildings, as well as an increase of five per cent in the wages of farm labor. ✓

Canadians are near the top among the world's consumers of milk and milk products. Latest information on total per capita dairy products consumption ranks Canada in sixth place, after New Zealand, Finland, Ireland, Sweden and Australia. Canadians are the largest consumers of evaporated milk, but hold sixth, seventh and thirteenth positions respectively as per capita consumers of fluid milk, butter and cheese. ✓

Grain producers who intend to buy legumes or grass seed this spring may deliver cereal grains in excess of their quotas to pay for their purchases. Thus, the same privilege now applies to forage seeds as has applied to cereal grains for several years. The Canadian Wheat Board instructions state that a producer may pay for seed by delivering up to 400 bushels of any kind of commercial grain in excess of present, or future, delivery quotas. The proceeds, however, must not exceed the cost of the seed purchased. ✓

Improved methods of slaughtering livestock are to be sought in a research project to be underwritten by the Meat Packers' Council of Canada. The council is working with the Ontario Society for the Prevention of Cruelty to Animals, with a view to finding a satisfactory and quick solution to the problem. ✓

U.S. price supports for the 1957 crop of oats, barley, rye and grain sorghums will be at levels reflecting 70 per cent of parity. The national average supports announced are: oats, 60 cents a bushel for Grade No. 3; barley, 94 cents for Grade No. 2, or better; rye, \$1.15 for Grade No. 2, or better; grain sorghums, \$1.83 per 100 pounds for Grade No. 2, or better. Dairy support prices are being continued at \$3.25 per 100 pounds for manufacturing milk and 58.6 cents a pound for butterfat, through the 1957-58 dairy marketing year. These are 83 and 81 per cent of parity, respectively. ✓

The paid bounty system on crows and magpies seems to have no merit as a game management tool, according to R. Webb, game biologist with the Alberta Department of Lands and Forests. It generally accomplishes only a reduction in predators when control is necessary. It could accomplish control, but payments would have to be too high to make the program worthwhile. As an alternative, trapping and poisoning methods are being tested, and it is thought that one of these will be capable of exerting the control of crows and magpies deemed necessary in the future. ✓

Delivery quotas on flaxseed have been declared open by the Canadian Wheat Board for the balance of the crop year 1956-57. Farmers may deliver flaxseed to any elevator selected by them, at which space for flaxseed is available. ✓

The U.S.D.A. estimates that wheat and wheat flour exports in the 1956-57 crop year will reach 450 million bushels. If this total is attained it will mean that last season's exports will have been topped by 104 million bushels. However, the report predicts no increase in home consumption of wheat, and a decline in exports to 350 million bushels for the 1957-58 crop year. ✓

Cattle numbers on U.S. Farms in January were down for the first time since 1949. They decreased from last year's high of 96.8 million head to 95.2 million head. In previous cycles, once cattle numbers started down, the trend continued for several years. Hence, lower numbers hold promise for cattlemen of improved prices in the future, but the improvement is not expected to take place until current heavy calf and steer numbers are reduced still further. ✓

Dairy producers across Canada set aside a record sum of \$372,000 in 1956 for use in their 1957 advertising program. While officials of the Dairy Farmers of Canada view the 1956 set-aside with satisfaction, they are quick to point out that a 100 per cent set-aside in 1956 would have amounted to \$651,000. Main difficulty in reaching the potential has been experienced in Quebec and Ontario, the provinces with the largest production of milk and cream. ✓

Feeders' Day in Alberta, conducted annually by the Department of Animal Science, University of Alberta, will be held this year on Saturday, June 1, according to Professor L. W. McElroy. ✓

Under the Peace Tower

by HUGH BOYD

EVERYONE heaved a sigh of relief when the nine-day Canadian Pacific Railway strike came to a halt. But everyone also knows that it could be resumed, for the formula which the government induced the disputing parties to accept, is binding on neither. Prime Minister St. Laurent said hopefully, however, that he was sure that the weight of public opinion would exert itself and prevent another strike on the diesel firemen issue.

So a three-member commission of judges headed by Mr. Justice R. L. Kellock of the Supreme Court of Canada set to work, and early in March it began to hold public hearings. Later on it will do some travelling, when, presumably, a fair number of Canadians will have a chance to watch proceedings. The experience so far at the Ottawa hearings is that the public, upon whom Mr. St. Laurent is relying to form an intelligent opinion, is staying away in droves. And you can't blame them. The testimony is technical and pretty repetitive.

Nor is the public likely to obtain anything like a comprehensive report of proceedings from its press and radio. Objective daily reports are being made available, but with so many other events at home and abroad competing for attention, they don't always get into print or on the air. Nor, under the circumstances, can the press and radio be blamed too much, either.

So, in the end, the public will probably have to be guided in the main by the findings of the three judges. It's to be hoped that those findings, whatever they turn out to be, are unanimous; disagreement would leave the situation in as unsatisfactory a state as it was when a conciliation board split two to one last December, on this central issue of whether firemen are needed for purposes of safety and efficiency on diesel locomotives in freight and yard service. Only the C.P.R. is affected, but of course, whatever recommendations are made—if accepted and put into force—are bound to have an effect on the Canadian National Railways. The numerous United States railways are by no means indifferent, either. Judging from evidence given by one American railroad official, management in that country also considers firemen on diesels to be superfluous, but hasn't forced a showdown. Nor has the C.N.R., for that matter; the C.P.R. is playing a lone hand.

All of the early witnesses were called by the Company, and so the picture is far from complete. Counsel for the Brotherhood of Locomotive Firemen and Enginemen has, in cross-examination, tried to show that even on a diesel the fireman has an indispensable role to play; that he is needed as a lookout. The odd case of narrowly averted accidents has already been cited. Safety of employees and of the general public must, of course, have precedence; and whether this can be achieved for practical purposes, under the C.P.R.'s proposals, is



for the Commission to decide, or at least to recommend upon.

The answer isn't to be expected for several months. That won't matter so much, if the job is done with such thoroughness as to leave no room for reasonable doubt. What the public, including freight-payers, want to know is whether an ultimate annual saving in operating costs of close to \$12 million as estimated by the C.P.R., can be achieved without a real prejudice to safety.

This is one matter that is going to drag on beyond the coming general election. The government may be just as happy that this is so—and the opposition parties, too, for that matter. All parties will have enough on their hands as it is, with the Fowler Commission's report on television and radio.

As this was written, the report was just on the verge of being released, and in spite of much speculation, nothing in it was known for sure. No matter; any recommendations regarding Canadian television in particular are bound to stir furious controversy. This enormously expensive medium will become more expensive still with the advent of color. Who are to pay for it, and how?

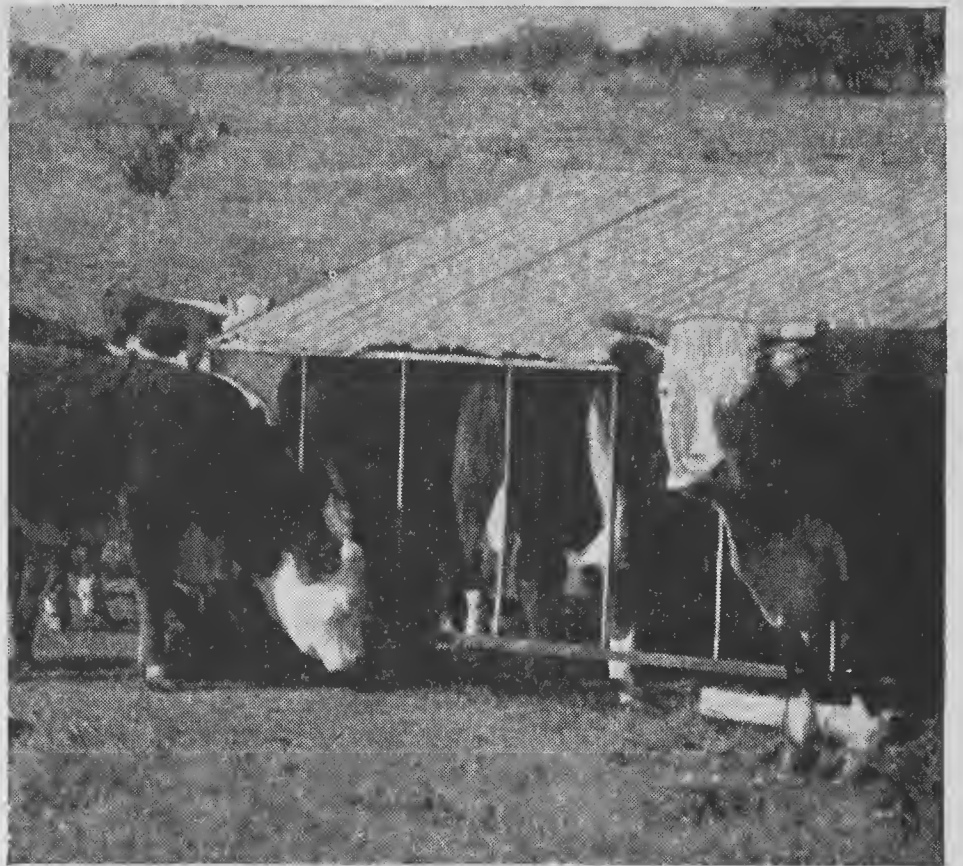
MEANWHILE another inquiry is going quietly forward. This is the study being made by a special Senate committee, under the chairmanship of Senator C. G. Power, into land use in Canada. Already enough has been said to disturb the fixed ideas of those who talk about Canada's limitless agricultural lands. For example, here is Prof. H. J. Spence-Sales of McGill University (having denied that there's plenty of good land available) said:

"The urbanization we are about to experience will raise in Canada a primary issue with regard to the use of land."

He argued that the growth of towns and cities since 1941 "is likely to pale into insignificance," compared with what is ahead. If the forecasts of the Gordon Commission are anywhere near the mark, some 900 more square miles of land, much of it fertile land, will be out of production by 1980.

Whatever else it is able to accomplish, this Senate committee seems likely to do some useful educational work before it is finished. V

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[H. Armstrong Roberts photo]

Second-year fleece weights are a more reliable basis than yearling fleece weights are, when you select ewes for the wool production of their lambs.

Selecting For Wool Production

IN selecting ewes for wool improvement, S. B. Slen of the Lethbridge Experimental Farm, Alta., has found that yearling clean fleece weight is a sound basis, but the second fleece gives a more reliable index of lifetime wool production because single wool characteristics are well established by that time.

Studies of clean fleece weights in the first year and mature wool production at Lethbridge and Manyberries showed that yearling fleece weights represented 85, 79 and 81 per cent of the average mature fleeces in Canadian Corriedale, Rambouillet and Romnelet respectively. Maximum production was reached during the second and third years of life. There was a gradual decrease in production after that until seven years of age.

His recommendation is that if satisfactory improvements are to be made second year fleece weights should be considered in addition to yearling fleece weights.

Boars Made Better Use of Feed

HOG producers can delay castration of barrows without any serious effect on growth, physical carcass characteristics, or feed requirements. This will also give you a better chance to select your boars.

This conclusion was reached at the Kapuskasing Experimental Farm, Ontario, where barrows castrated at birth, or at six, 12, or 16 weeks of age needed more feed per 100 pounds of gain than boars did. The feed requirements were 316 pounds of feed per 100 pounds of gain for boars, compared with 347, 362, 353, and 360 for barrows in the order listed above. Gilts needed 343 pounds of feed per 100 pounds of gain.

In addition to this, the boars were noted for thinness of fat at shoulders, loin and back, but the barrows castrated at birth and at six weeks had the highest fat measurements. In length of side, the boars averaged 31.6 inches, compared with 30.8 inches for barrows castrated at six

weeks, and 31.3 in the case of gilts. The area of loin was not much different in the various groups.

The recommendation is only for delayed castration. The market still discriminates against boars and stags. V

Keep Livestock Away from Shelterbelts

SHELTERBELTS and livestock don't mix, according to studies carried out by the South Dakota State College and the U.S. Department of Agriculture. Livestock cause damage by packing the soil, browsing and breaking branches, and rubbing against the trees. Killing off the lower limbs and underbrush allows wind and snow to blow through the shelterbelt, and trampling of the soil kills off the fine feeder roots near the surface, which are the only ones that can take advantage of slight rains. Packed soil also causes much of the rainfall to be lost through evaporation and run-off.

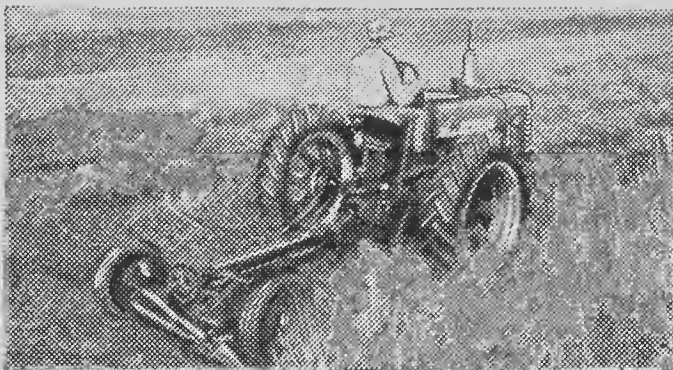
Tree planting protected from livestock, and cultivated until the trees grow together and shade out the weeds, will form a layer of leaf mold on the ground. This layer holds moisture like a sponge, builds up organic matter in the soil, and prevents drying of the soil surface by sun and wind. Grazing animals prevent the formation of leaf litter by trampling and browsing off the lower leaves.

It has been estimated in South Dakota that grazing of shelterbelts cuts their ability to increase yields of adjacent crops more than 22 per cent. Stock-fences around the shelterbelt are the answer. V

Weights Show the Money-Makers

ACCURATE weights at various stages of growth and finishing make it possible to identify the money-makers in your herd, and you can discard the boarders. That's why H. J. Hargrave of the Lethbridge Experimental Farm, Alberta, says that a set of scales is one of the most useful tools available for the producer or feeder of commercial and purebred livestock.

You can get scales which weigh one animal, or a model to weigh a carload,



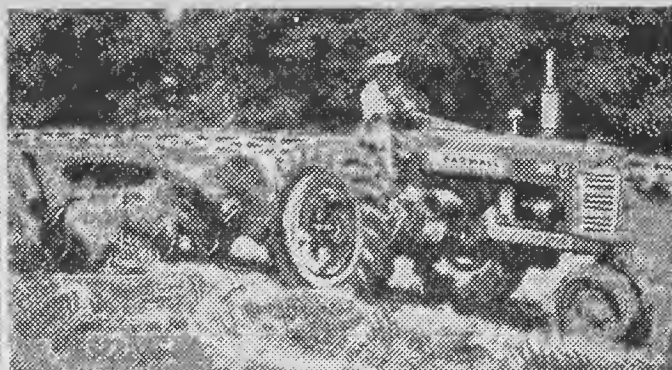
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Get gentle, high-speed raking! Rake all your hay when it's ready, season after season, with the new McCormick No. 15—or its Fast-Hitch counterpart the No. 11 FH. Shortest possible hay travel means gentle, leaf-saving action at fastest raking speed. Also the great McCormick No. 5 side rake and other special models.



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but whether they are big or small, you can get from them the growth rate, performance on feed, shrinkage and the final value. Weights at various stages of growth help you to improve your stock more rapidly than is possible when sale weights are the only accurate weights in the lifetime of an animal. Performance testing also means more reliance on systematic weighing.

There's a wide variety of scales available these days, and you can pick the one that suits you best. V

This Uninvited Guest Is Costly

THE nodular worm, which for many years has rendered useless 20 per cent of the lamb casings and up to 90 per cent of sheep casings in eastern Canada, has been found in the past two years to have reduced yields of beef casings by 20 to 40 per cent. This parasite forms nodules or cysts on the wall of the intestine, giving rise to the names of "pimply gut" or "knotty gut." The losses caused by this worm amount to tens of thousands of dollars annually.

Eggs from an infected animal pass out in the manure and hatch into larvae in about one day. The larvae become infective in about five to seven days. They are taken up by the animal in food or water, penetrate the wall of the lower part of the small intestine, and stay there for about five days in sheep and ten days in cattle. Then they migrate to the lower intestine, where they grow to adult size of 1½ inches. These adults produce eggs to complete the cycle, the complete process taking from five to eight weeks.

The nodules are formed when the animal resists the entry of the parasite into the intestinal wall by encasing it in tissue. In addition to their effect on the casing, the nodules interfere with normal digestion and absorption of food, making animals unthrifty, causing scours, and even killing young animals.

Rotation of pastures helps to protect sheep from nodular worms. In addition, all adult sheep, except un-lambled ewes, can be treated with phenothiazine pills or drench 24 hours before moving from winter quarters to spring pastures. For heavy infestations, the entire flock should be treated again in the fall, 24 hours before moving back to winter quarters.

Cattle can be dosed with phenothiazine too, but they are harder to handle than sheep, and the drug gives milk a pinkish color for four or five days. It is not practical to give the phenothiazine in feed, because cattle find it distasteful. However, "pimply gut" is an increasing problem and cattle must be treated if it is to be stopped. V

Grub Killer Gets Under the Skin

AN insecticide that livestock can swallow, and which moves through the body, is close to becoming a reality, says Dick Painter of the veterinary and medical entomology unit at Lethbridge. This type of in-

secticide is known as "systemic." It works through the body fluids to destroy northern and common species of grubs, before they break through the hide and appear on the backs of infested cattle.

The chemical which gives this new hope is ET-57. Used at the rate of 1.6 ounces for a 1,000-pound animal, it did not appear to be harmful to the animal itself. One dose was sufficient to kill 92 to 100 per cent of the grubs within a few days, and it also got rid of cattle lice and killed biting fleas for two or three days.

It is still too early to recommend ET-57 as a control for cattle grub. Such things as its effect on meat and milk, and the best way to administer it, are still being investigated. V

Pasture In the Feedlot

HOW does this mechanical grazing idea work out? It was tried at the Central Experimental Farm, Ottawa, where the animals were kept in the feedlot, and fresh pasture was brought to them in a self-feeding wagon. This was loaded each day by using a shredder-type forage harvester.

The equipment cost \$1,500, plus a three-plow tractor and an operator. For each day's feeding it took 8 to 16 minutes to hook up and unhook the harvester, 8 to 12 minutes to travel a quarter of a mile, and 10 to 20 minutes to cut a ton of feed. On the basis of one ton of green feed to 15 or 20 cattle, this means that it takes 26 to 48 minutes to feed them each day. A larger loader can supply two tons in 36 to 68 minutes a day.

The conclusion is that a shredder-type forage harvester does the job well, if fields are suitable for mechanical operations. One man can do it without too much strain. V

Right Flavor Helps to Sell Milk

OFF-FLAVORS in milk can be avoided, says Erle Roger, livestock specialist with the Saskatchewan Department of Agriculture. Sudden changes in feed are sometimes responsible for these flavors, which may result in lower milk sales. Make changes gradually, so that the cows can adapt themselves to the digestion of the new feed. If there are ingredients in the feed which cause off-flavors, do the feeding after the milking.

Stable flavors are another problem. These result from damp and badly ventilated barns, or from cleaning the barn during milking. You should avoid sudden changes in barn temperature, and do the cleaning at least an hour before milking. It also helps to clip the hind-quarters of cows in winter.

You can keep them dry and comfortable by providing plenty of bedding. Remember that loose housing requires three times as much straw as conventional housing does. Don't put the bedding out early in the day, because your cattle will trample all over it in loose housing. Bed them at about 4 p.m., and it will be clean and dry for them overnight. V

FIELD



The home-made plywood disk and iron ring, or the commercial "pie plate," cover all but three-quarter inch of the drill disk and control depth of forage seeding.

Depth for Forage Seeds

HOW deep should forage crops be seeded? The question is important because seeding at too great a depth is one of the major causes of unsatisfactory grass and legume stands in the arid prairie regions of western Canada.

The answer given by the Swift Current Experimental Farm, Sask., is that crested wheatgrass, brome, Russian wild rye, tall wheatgrass, alfalfa and clover should not be sown more than one inch deep. Fair stands of intermediate wheatgrass and reed canary grass have resulted when they were sown at a depth of one and one-half inches.

To avoid sowing too deeply, use shallow tillage in preparing the seed bed, then pack or harrow to firm the land before seeding with a double-disk drill. Disks and one-ways are not satisfactory for grass seed.

Depth controls clamped onto the sides of the drill disks increase the width of the disks and prevent them from seeding more than one inch deep.

Try Plow-Plant Tillage

ONTARIO farmers learned that much of the conventional disking and harrowing after plowing in the preparation of seedbeds is unnecessary.

Dr. R. L. Cook, of Michigan State University, speaking to the Ontario Soil and Crop Improvement Association, said that work on sandy loam, loam and clay loam soils, bore this out in his state. No method of tillage gave greater yields than use of the moldboard plow, but he advised farmers to haul a rolling packer behind the plow, then seed without further tillage, to get just as high yields or higher than with conventional tillage.

A double culti-packer with spring teeth between was hauled behind the plow in another test, but it increased draft $2\frac{1}{2}$ times as much as the rolling packer. A rotary hoe, run backwards, was tried, but it did not fill up depressions quite as much as most farmers desire.

The easy-tiller, which is composed of blades attached to a rolling shaft

was satisfactory, particularly on heavier soils, and where the soil was covered with a sod before it was plowed. An ordinary spike-tooth harrow with the teeth fixed on the slant, did very well too, in Dr. Cook's tests.

He reported that weed control was very easy where planting was done immediately after plowing.

Best Way To Seed Wheat

DIFFERENT ways of seeding wheat have been tested on the heavy clay soils at the Regina Experimental Farm, and here's what was found. A duckfoot cultivator on summerfallow, followed by a double-disk drill, was better than a one-way disk with seeder attachment. Average yields were up about three bushels during the past 18 years, but the difference has been only slight in the past two years with a disker, when moisture conditions were favorable.

The one-way disk with seeder attachment, followed by the packer, has given the best results on stubble, compared with the disker, seeder attachment and pack, and the one-way disk, seeded with drill and pack.

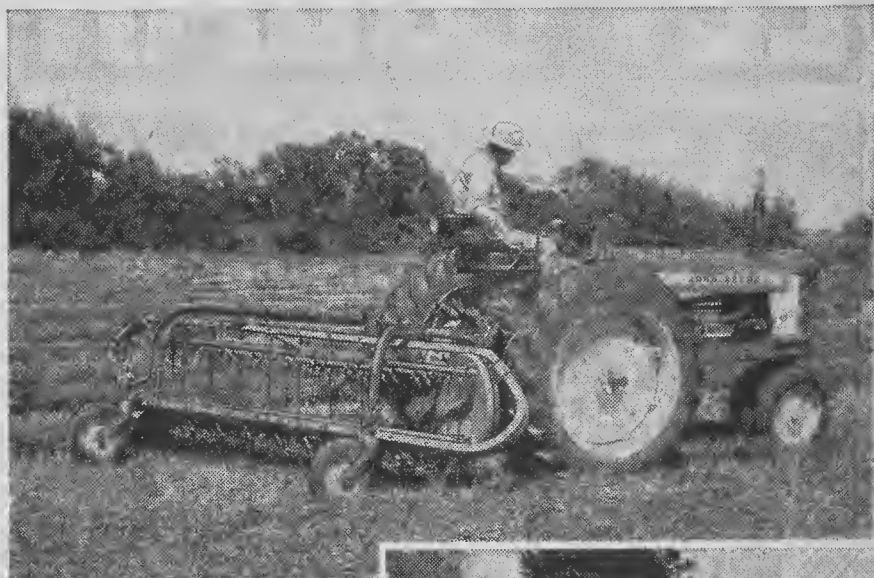
It has become clear over a long period that it is important to pack after seeding, whether the one-way disk or the disker is used.

New Oats For Maritimers

FUNDY, a new variety of oats developed at the Fredericton Experimental Farm, N.B., is available in limited supply for New Brunswick, Nova Scotia and Prince Edward Island this year. There is no foundation or elite stock for distribution.

It has been widely tested in the Maritime Provinces during the past four years and has yielded well. It can mature early enough to escape frost damage, whereas Abegweit, sown on the same date, was so damaged by frost that it could not be used for seed. Fundy is about two days earlier maturing than Ajax, has better straw, a more attractive kernel, and about the same resistance to diseases. It has yielded several bushels per acre more than Ajax in many areas, but two to three bushels less per acre than Abegweit.

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A simple hitch adapts the 3-point 350 to semi-integral operation (left). Hydraulic or manual lift is available. The semi-integral 350 Rake works with any tractor equipped with a standard power take-off.

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Excerpt from "Seedtime and
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FIELD

**Glass Beds
For Burley Seedlings**

THE best quality cigarette tobacco comes from the earliest plantings, especially between May 18 and 28, says W. A. Scott of the Harrow Experimental Farm, Ont. The slow growth of burley seedlings in the plant bed will delay transplanting, but glass-covered beds are a practical way to produce early seedlings. If you seed the glass beds about the end of the first week in April, you will have transplantable seedlings soon after the middle of May, if the weather is favorable.

You need good underneath drainage for glass-covered beds, and if the bed cannot be located on well-drained light soil, remove heavy topsoil and replace it with a good sandy or gravelly soil to a depth of one foot.

Apply a layer of spongy, black muck, about an inch deep, each year, and use one pound per square yard of 2-12-10 tobacco fertilizer. You can hasten growth, if necessary, with four pounds of ammonium nitrate in 45 gallons of water at the rate of one gallon to 20 square feet of plant bed. It is better not to make this treatment later than two weeks before transplanting, because the seedlings will be soft for about a week afterwards.

Burley plants should be watered twice a day only in fair weather until they cover the ground, and then give them one good watering a day. The watering should be completed before 3:00 p.m., allowing time for the leaves and stems to dry before nightfall. This prevents damping-off.

The temperature in the bed should not exceed 90 degrees F. for maximum growth. Maintain the proper temperature by ventilation on the leeward side to avoid cool drafts, which may damage seedlings. Harden the seedlings for a week before transplanting, by constant ventilation and a reduction of watering.

**Ways to Deal
With Couch Grass**

COUCH grass can be eradicated by summerfallowing during dry summers, provided this is done frequently and thoroughly. Even more care is needed during wet summers, or the couch grass will quickly re-infest the land.

Experiments have been made with chemical control at the Saanichton Experimental Farm, B.C., and both TCA and Dalapon have been successful. TCA sprayed at 50 pounds per acre in 80 to 100 gallons of water, and cultivation immediately before or after the application, has given good results in June and October. This is a short-term sterilant, and it is not practicable to crop the land after a spring treatment. Spring sowing can follow a fall application.

Dalapon acts on the leaves as well as the roots, and the soil should not be worked at the time of application, but about two weeks later. Applied at 25 pounds in 80 to 100 gallons of water it is similar to the TCA treatment.

Fall applications give good control, but you should guard against regrowth in the spring. For that reason,

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Stevens Model 59—.410 gauge, bolt action, 6-shot tubular magazine. Full choke. \$38.95.

Model 58—.410 gauge, similar but with walnut finished stock and 3-shot clip magazine. 26" barrel. \$31.95.

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DAND'S, Swift Current, Sask.



FIELD

it is preferable to plant a row crop, so you can cultivate and hoe where necessary. Alternatively, use a quick-growing crop which will compete with the couch grass for moisture and plant food. ✓

Best Varieties Not the Most Popular

MORE oats will be seeded in Ontario this spring than any other cereal. The only cloud in this picture is that the best variety available, Garry, is not the most common one grown.

Dr. D. N. Huntley, Field Husbandry Department, O.A.C., says that Garry outyields Ajax or Beaver oats by 18 per cent. That's an eight-bushel advantage to Garry in a normal crop year, or more than enough to pay the added cost of the highest quality pedigree Garry seed.

It doesn't pay to seed Beaver and Ajax seed at any price now, says Dr. Huntley. "Their place is in agricultural history, not in seed drill boxes in 1957." ✓

Grasshoppers On the March Again

GRASSHOPPERS are once again multiplying and extending their range in Manitoba, according to an egg survey made last fall. The Manitoba Department of Agriculture has published a map showing the threatened areas.

The Saskatchewan grasshopper forecast map is also available, showing a fairly light infestation, but a significant one, mainly in the southeast. Alberta's map indicates light infestation in the southern part of the province.

The recommended cultural control is to shallow cultivate infested stubble soon after the thaw to root up egg pods, and to summerfallow on any heavily infested stubble. Chemical treatment should be carefully timed. The eggs hatch about the middle of May, and it pays to inspect the land daily around that time, so that the grasshoppers can be destroyed as soon as they become numerous, and before they disperse into the crops.

The recommended sprays are Aldrin, Dieldrin, Heptachlor and Toxaphene, all of which can be applied with a weed or turbine sprayer. Two applications may be needed if there is a second hatching. Keep livestock off the treated areas for the period shown on the label of the chemical. ✓

Control of Quack Grass

THE chemicals Aminotriazole and Dalapon have done excellent jobs of controlling quack grass," reported Prof. Geo. Jones of the O.A.C. at the Ontario Soil and Crop Improvement Association meetings this winter.

He said they were probably the best forerunners of new, cheaper and much better chemicals for controlling twitch. Dalapon, he said, is already decreasing in price. Perennial weeds, like this one, have become more prevalent now that annuals have been controlled by herbicides such as 2,4-D, he reported. ✓



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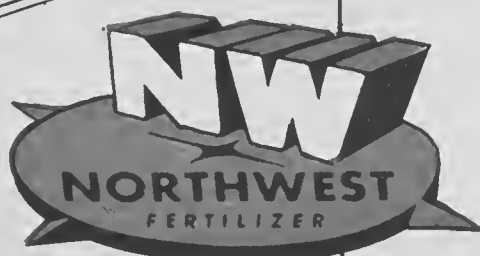
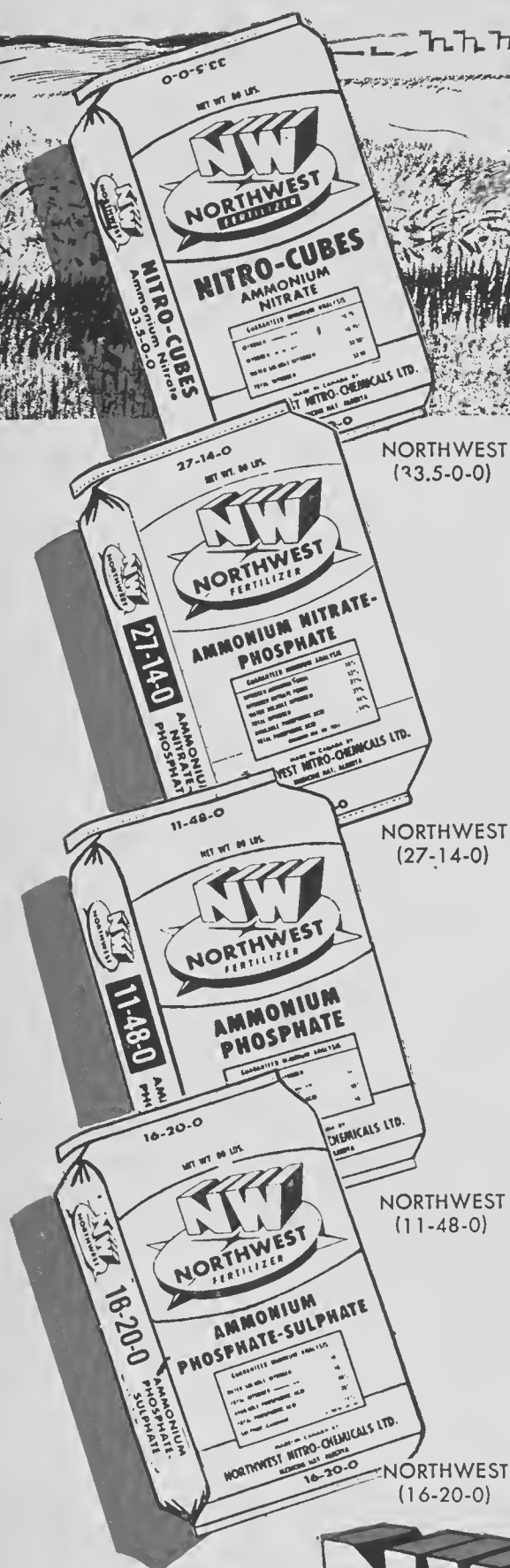
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HORTICULTURE



Spring is always a glad time of the year, especially for children and gardeners. For a time after the soil dries, gardening is more play than work. [Luoma photo]

Vegetable Merit Trials

THE Horticulture Division, Central Experimental Farm, Ottawa, has for a number of years conducted the Canadian Vegetable Merit Trials, in co-operation with eight other institutions across Canada.

In 1956, these trials involved the testing, at all of the above institutions, of 32 vegetable varieties, of which only four showed particular merit under existing climatic conditions. Autumn Spice onion, now tested for four years, showed wide adaptation in addition to earliness, uniformity and good storage quality. The Claudia carrot was more widely adapted than Gold Pak, the next best variety tested; being a short-topped variety, with good flesh-color and a small core. Both for home garden and storage it was favored at Ottawa, Macdonald College, Vineland, Winnipeg and Edmonton. The Kelvedon Monarch pea was well liked at Charlottetown, Ottawa, Vineland, Morden, Winnipeg and Vancouver, but was rather late for Edmonton. It is a heavy yielder under suitable conditions. The plant is bushy and fairly tall; and the peas are dark green and suitable for freezing, with good flavor.

Northern Lawns Need Good Shelter

THE Experimental Farm at Fort Simpson, in the Northwest Territories, reports that lawn grass in these far northern areas requires shelter, for protection against winter winds; otherwise, dry, powdery snow is blown off and the grass killed or weakened.

Permanent shelter along the north and west boundaries of small properties should be routine practice; and for larger properties a multiple-row windbreak is more effective than a permanent hedge row.

Northern conditions are dry, and the recommended planting material for hedging is the common caragana, which is hardy, drought-resistant, and relatively long-lived. At planting time, and until the seedlings (one-year-old) are established, they will require care

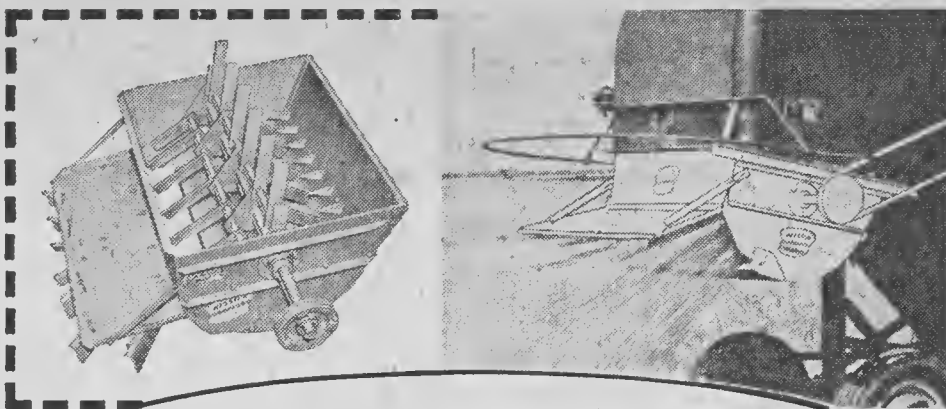
and attention. For a multiple-row windbreak, caragana is recommended for the windward, or outside row. These should be planted about three inches deep and one foot apart. The inside rows should be of native spruce trees, six feet apart and six feet inside the outer row. If practicable, several such secondary rows (six feet apart) are desirable to make the windbreak more effective. Also, to get temporary quick growth until the spruce have attained some height, these can be interplanted with poplar, or some other fast growing trees, which must, however, be removed when they begin to crowd the permanent evergreens.

Peaches After Peaches

FEDERAL workers at the Science Service Laboratory and the Experimental Farm at Harrow, Ontario, advise that special care as to the quality of nursery stock and the time of planting are necessary where new peach plantings are to follow old peach orchards that have been removed. Planting as early in the spring as possible is advised, and if necessary to avoid danger of shrivelled, dried-out trees, fall delivery should be specified.

At planting, shake plenty of good topsoil about the roots and tamp well. Provide adequate nourishment such as two gallons per tree of a starter solution high in phosphorus (10-52-17, or 10-30-10), using nine pounds of fertilizer in 120 gallons of water. A bushel of manure placed around the tree after planting tends to stimulate growth in dry years.

Top the newly planted trees at about 30 inches and remove all branches up to 18 inches from the ground. Cut the remaining branches back to two buds unless a satisfactory selection of permanent branches can be made. Keep the weeds down about the trees to conserve moisture, and where practicable, irrigate in dry weather. Avoid interplanting with late crops such as sweet potatoes, and cease all cultivation in mid-July. Finally, in late fall, remove weeds and apply a suitable rodent repellent.



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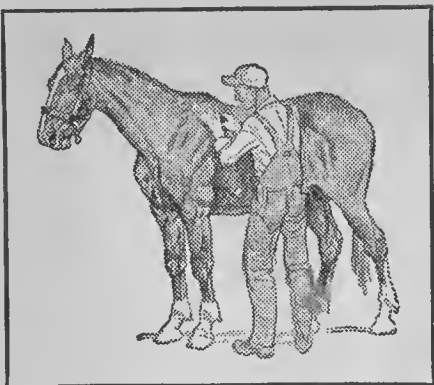
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POULTRY



[Bob Taylor photo]

Given all the starter they can eat, sufficient space, proper temperatures and ventilation, chicks should more than repay this extra care by rapid growth.

Home Comforts For Those New Chicks

EXAMINE your chicks carefully when you take delivery from the hatchery, and check with your railway station operator for any evidence of sickness or disease among them, says the Saskatchewan Department of Agriculture.

They will need a good brooder house on the basis of 10 by 12 feet for 250 chicks of five to six weeks old. Double the floor space after that. The brooder house should be thoroughly cleaned and disinfected before the chicks move in, allowing time for drying and airing.

It is a good idea to have the brooders set up and running several days before the chicks arrive. The room temperature should be 70 to 75 degrees, with the temperature at the outer edge of the canopy, about two inches from the floor, at 95 to 100 degrees until the chicks are a week old. Reduce the temperature by about five degrees a week until they no longer need it.

This Is A Turkey Killer

BLACKHEAD of turkeys can cause death losses up to 100 per cent, if it is allowed to go unchecked, says Dr. Bigland, the veterinary pathologist of poultry diseases for Alberta. This disease is caused by a tiny parasite, which is protected and carried around in the caecal worm of chickens, or the caecal egg, and it can live in the soil from year to year.

It is a disease of the liver and intestines, showing first as a weakness. The turkey lags behind the rest of the flock, loses appetite and weight, and has severe diarrhea with sulphur-colored droppings. This bird usually dies from three to ten days after the first symptoms appear. If the disease is prolonged, it becomes thin and its head sometimes turns purple.

Prevention is by avoiding exposure to caecal worm eggs. Keep chicken and turkey flocks absolutely separate, preferably by raising chickens only, or turkeys only, but not both. Range rotation also helps to control the caecal worm, and if the field is large enough, each area can be rested for

two to three years to give the parasites a chance to die out. Sanitation is the most important control measure, but drugs can be used for treatment, if you consult your veterinarian first.

Cutting Down The Cost Per Egg

THE shift in Canadian poultry farming from small farm flocks to large commercial ones is being accompanied by lower profit margins. Poultrymen are becoming ever more conscious of production costs, and are reappraising the breeds and crosses for egg production.

T. M. MacIntyre, senior poultryman at the Nappan Experimental Farm, N.S., says that the heavy, dual-purpose breeds and crosses are giving way to the lighter ones, because the price of fowl has been low in recent years, and the light birds need less feed for maintenance, and can therefore produce eggs more economically. Light birds with good egg production can reduce costs by as much as \$1 per bird per year.

Many will be sorry to see the heavy breeds go, but present trends show that profit from the laying flock must come largely from egg production, rather than meat value. The lower maintenance requirements of the light breeds make for more economical egg production.

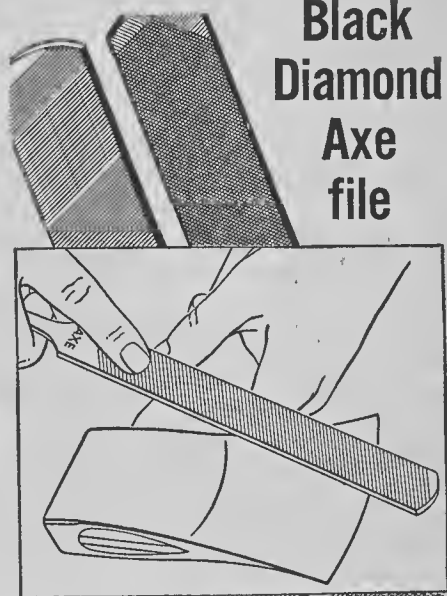
Watch Out For Roundworms

KEEP an eye open for unthrifty birds and check the droppings for evidence of roundworm infestation, warns Irving Mork, who is extension poultryman at the North Dakota Agricultural College. About 50 per cent of the chickens received at the North Dakota laboratory are found to be infested with roundworms.

The recommended treatment is with a piperazine product, which kills the roundworms and is about 60 per cent effective against the caecal worm. Piperazine does not cause any loss in egg production, and is not poisonous like some of the old wormers. It is obtainable under a number of brand names.

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Out and About Once Again

Spring is an opportunity for outdoor jobs if you have time before the busy weeks ahead

Flooded basement. If you should be caught with a flooded basement and haven't a pump, the usual way is to carry the water out pail by pail. Here is a way out. Place a tub or similar receptacle on one of the higher steps of your basement stairway, put one end of a hose in the tub, and the other out through the basement window to the yard. Fill the tub with pails, and then siphon the water out through the hose. This is done by sucking the air out of the hose from the outside. Once the water is running, keep the tub filled, and use more than one hose if the flow is too slow. The outlet from the hose must be lower than the end in the tub. This system can also be used for watering gardens or livestock.—S.S.B., Sask. ✓

Electric fence insulators. Whenever I run short of the proper insulators for an electric fence, I use sections of rubber garden hose slit down one side. They slip over the wire and can be attached to the fence posts as shown in the illustration.—M.K.T., Alta. ✓

Garden sifter. For the home garden, this quickly made, dry dust sifter can be used among potatoes, cabbage and most other plants. With it, you can reach out, over and down without stooping. Take a gallon can and punch nail holes in the bottom and about 2" up the sides. Drill two small holes in a broom stick for the handle, and drive two nails through the handle first, and then through the side of the can. Bend the top nail up and the other down on the outside, and you are all ready to go.—H.S., Mich. ✓

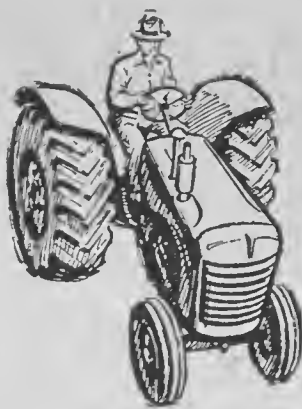
Hangers for window boxes. Storm sash supports make handy hangers for small outdoor window boxes. Anchor the hooks of the hangers to the house, alongside the window. Then screw the eyes of the hangers onto the back of the removable window box. You will find that these hangers support the window box neatly, and simply.—M.M.E., Alta. ✓

Corner post tightener. To make a good, strong corner post, drill $\frac{3}{4}$ " hole in the post about 4" from the ground, and another hole in the next post near the top. Take two pieces of $\frac{1}{2}$ " or $\frac{3}{4}$ " iron, about one foot long, thread one end of each to take a nut, and insert them into the holes. Take any cable, or turn two wires together, and secure it to the pieces of iron. Place a two by four between the tops of the posts. The cable is secured to the two iron bolts, and can be tightened by turning the nuts, enabling you to keep the corner post secure whenever it starts to work loose, while the two by four keeps the top rigid.—D.S.M., Man. ✓

Window in Drill. This saves me many a stop and a lot of time when I am seeding. I cut a square hole in the front of my grain drill and tiller, and fitted glass into the opening. This has enabled me to keep an eye on the seed without stopping and dismounting.—M.P.H., Alta. ✓

Gate catch. Here is a sturdy and inexpensive gate catch that will not stick. Using two by fours, you make an arm to be attached to the gate with a bolt. The arm should be 18" long, and placed so that it will drop into a groove made of two 10" lengths with a 6" length sandwiched between them, and nailed together. This bracket is secured to the gate post. This is better than gripping cold iron to open the gate in winter. The arm should be loose enough to allow expansion in the rain, and this can be done by using washers. For doors, make a bracket at each side of the door and lay a length of pipe or board across the two.—S.S.B., Sask. ✓

Clinching staples. You can clinch staples in a steel fence post this way. Drill $\frac{11}{32}$ " hole in the post, pinch in the post, pinch in the points of the staple and drive it into the hole. As it comes out the other side of the post the points will open up automatically, and the staple will be clinched.—J.J.A.E., Alta. ✓



No need to wait
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—or any other
farm equipment

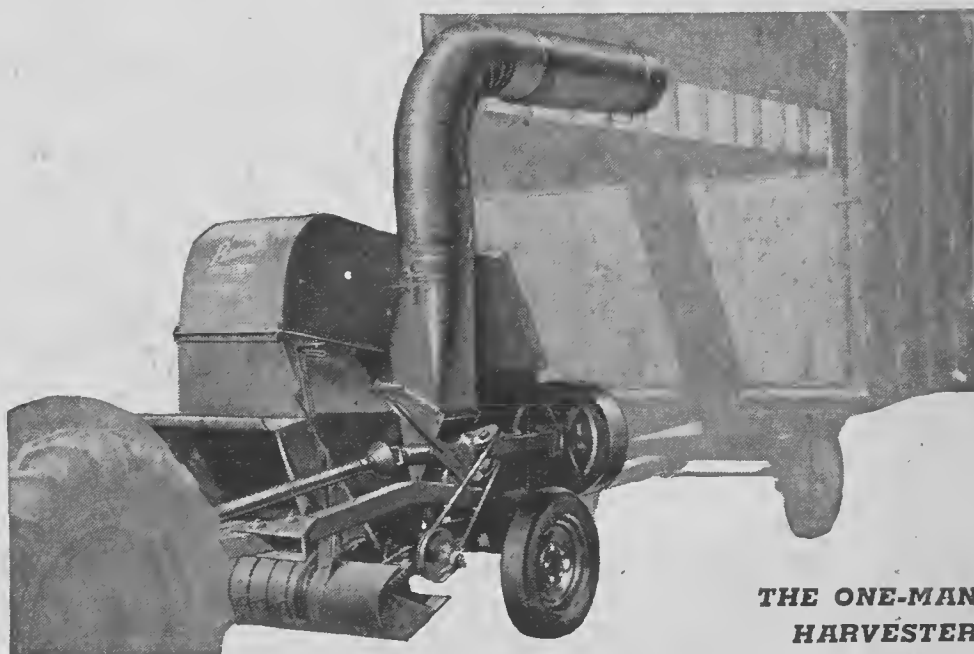
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The McKee Shredder Harvester brings your hay in at $\frac{1}{3}$ the cost of the baler method

With the McKee Shredder Harvester, you handle hay, grass silage or straw easily by yourself! You save the high costs of extra help. You go right ahead when the time is right and put in as much as 20 tons per day!

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Actual figures from buyers' records have proved that the McKee Harvester takes hay from windrow to barn at a cost of 97 cents per ton—as against \$2.54 per ton for baler method of handling. (Labour at \$1.00 per hour included for both methods.)

It's the only machine that loads in the field and unloads at the barn with no additional blower needed. The McKee Harvester travels to and from the field with the tractor and wagon. You feed hay into it for about 10 minutes every half hour ... and the machine does the rest!

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The McKee Shredder Harvester doesn't chop the hay, but shreds it for better feeding and easier handling.

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The McKee Shredder Harvester is Canadian-made by men who know the Canadian farmer's needs. That's why more McKee Harvesters are being sold on Canadian farms than any other make! Find out how its low cost and fast, one-man operation can save you money right down the line!

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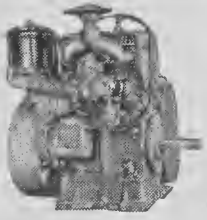
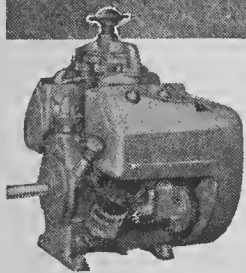
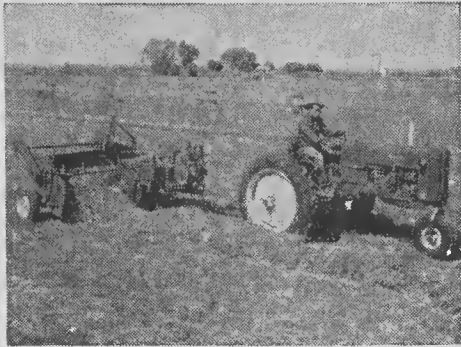
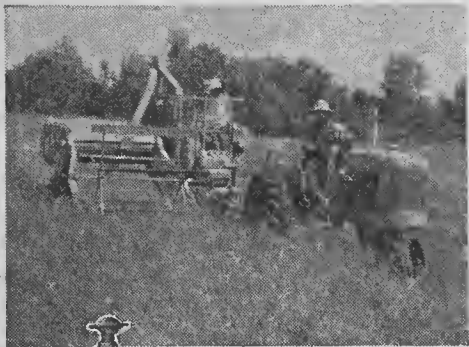
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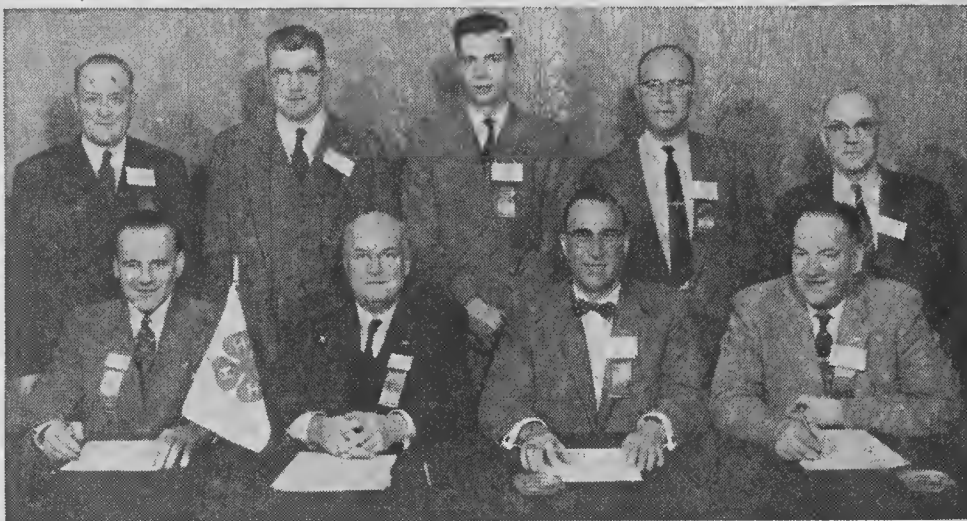
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Young People

On the farm and at home



Executive of the Canadian Council on 4-H Clubs, 1957: (l. to r.) seated: James Moore, sec. mgr., Ottawa; D. C. Foster, past pres., Wpg.; F. E. Wolff, pres., Toronto; C. A. Douglas, vice-pres., Truro. Standing: L. C. Roy, Toronto; J. E. McArthur, Belleville; C. Usher, Edmonton; J. E. Dube, Que.; E. F. Pineau, Ottawa.

Highlights from The Council Meeting

THE plan to delete judging contests from National 4-H club week has met with unanimous approval from all provinces," stated D. C. Foster, Director of Extension, Manitoba Department of Agriculture, in his presidential address to delegates attending the Canadian Council on 4-H Clubs in Amherst, Nova Scotia. Summing up the work of the conference, Mr. Foster explained that since this major change in 1956, no further policy changes had been contemplated. For the next few years, Council will work toward consolidating its position.

Mrs. John McLean of Eureka, Pictou County, N.S., suggested that more time should be given to interest in municipal, provincial and federal affairs, a proper attitude toward newcomers to Canada, tolerance toward those of other races and creeds, and a pride in community and province.

Walter Shaw, retired Deputy Minister of Agriculture for P.E.I. remarked that although not all members follow farming as their occupation, yet their early training in club work extended into community, regional and national activities. "These ex-club and ex-farm members have kept open a two-way street over a rural-urban bridge, and have developed a desirable understanding of mutual rural-urban viewpoints."

Don't Underestimate Opportunities in Farming

WHEN it comes to young people getting along in farming, we'll bet on Roger Hadfield, at Ayr. This 22-year-old Ontario youth is providing a pretty convincing demonstration that there is a place for young people on the farm today.

He is taking over from his father, has developed a year-round steer-feeding operation, handles 125-175 steers at a time, and grows 200 acres of corn (more feed per acre than with any other crop) year after year on the same land. He's in the lead in the beef-feeding business, already using the "modern" techniques that exten-

sion men are beginning to talk about. He admits that profits were slim in his first three years but he adds, "This year I'll pay some income tax."

His corn-beef program for his 400 acres (200 corn, 100 coarse grains, 100 hay and pasture) is apparently on the tracks. The older Hadfield, with a note of understanding pride, offers that "Bookkeeping is the most important job in farming. Roger spends a lot of time on his books. That is why he is making headway."

"My investment in buildings is practically nil," Roger explains. "I tore the stabling out of the home barn, and the barn on the other farm, set up feed bunks around the edge, and provided additional shelter at home by building a pole barn walled in on all but one corner."

At home, he feeds from a tower silo. But at the other farm, they eat corn silage from a bunker silo, free choice. "Risk in this business is too high to allow a heavy investment in buildings," he observes. "A profit today can turn into a big loss tomorrow if the price breaks."

His program of producing the bulk of his feed as corn, provides plenty of flexibility. "If early frost damages come, I can chop and ensile it in low-cost bunker silos, then self-feed it. That saves most of the feed values. Or the grain can be husked and cribbed for year-round feeding."

Since he buys steers, he can buy enough to match his feed supply, but if prices justify, he can buy both steers and grain. He'll buy any kind of steer, depending on the price—top quality ones or poor ones, short-keeps or long-keeps. He doesn't try to buy (Please turn to page 32)



Roger shovels corn from wire crib to elevator which dumps it into truck.

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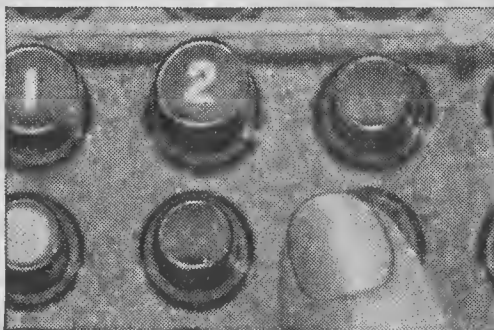
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**Bulletin 562, "Problems and Practices of American Cattlemen", Washington Agricultural Experiment Station, Pullman, Washington.

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CYANAMID

YOUNG PEOPLE

his own cattle. A big cattle dealer buys for him. "He's on the market regularly. I'm not, so I depend to a large extent on his judgment," he explains.

"When I started five years ago, the beef business was going down-hill. I had to find a quick way to trim my feeding costs. So far, he has made only one "big" spread on the cattle. Last summer's market gave four and five cents. Usually it's one or maybe two cents. The margin is so small, I've got to feed on the gain."

His figures show that invoicing the grain into the cattle at market price, he can put gains on yearling steers for about 20 cents. If he can sell for that, or a little more, with a one cent spread, he figures he can keep going. To cut costs, he was feeding corn and cobs whole last winter. "It doesn't pay to go to the expense of grinding them. Yearlings can handle the whole cob."

He is feeding stilbestrol this year too. After sending off his first lot with



Roger Hadfield, Ayr, Ontario, looks over a few steers just going onto feed.

the drug, he commented, "I didn't notice much difference until a couple of weeks before they went out. But weights showed the cattle did extremely well. It looks as though it pays off."

Growing the feed is half the business and he grows 200 acres of corn without rotation—a practice most Ontario farmers distrust, but which is paying off for him, and is commended by soil specialists. He is using anhydrous ammonia for fertilizing his corn now and says it gives spectacular results.

His fertility program calls for liberal amounts of manure for the land, then triple superphosphate and muriate of potash applied with the deep applicator on his four-row planter. Then ammonia is applied as a side dressing after the corn is six inches high. He is using 2,4-D for weeds as well.

Since he is looking far to the future, he takes a remarkably adult view of farm organizations too. "Some day, I would like to be able to do more work for them. It's only through them that we will bring more stability to farming, take some of those biggest risks from it."

Saskatchewan Radio Broadcasts

IN Saskatchewan 36 clubs will participate in the first 4-H radio broadcast competition in Canada. Members will present ideas on projects, special activities and 4-H events. Radio stations in the province will carry one broadcast a week during April and will provide a trophy and prize money.

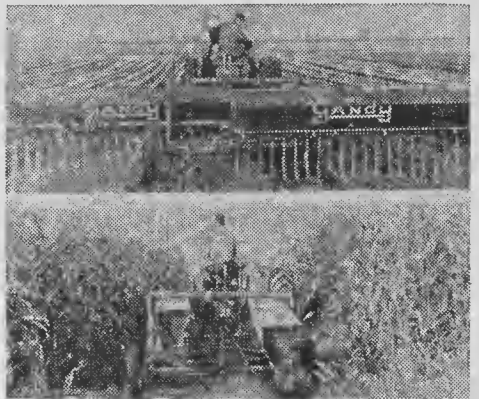
WHAT'S NEW



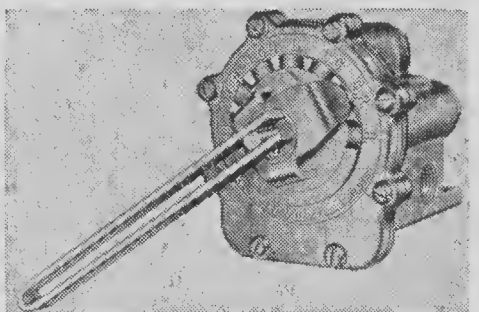
This new streamlined combine has a lower center of gravity, which provides more safety and traction on slopes and rough ground, according to the manufacturer. The floating table is more stable and there is more room on the operator's deck. (Massey-Harris-Ferguson Ltd.) (166) ✓



Claimed to have a pumping capacity up to five gallons a minute, with pressures up to 40 pounds, this portable pump will handle clean or dirty liquid. It is available with electric motor or gasoline engine, and can lift water 10 to 22 feet. (Manwest Engineering Ltd.) (167) ✓



This spreader-seeder is 20 feet wide, but folds to less than eight feet for travel and storage. It is said to cover the same width of application as a truck spreader, and can be used where a truck cannot. It holds over a ton of bulk or bagged fertilizer. (E. S. Gandrud Co., Inc.) (168) ✓



A new control for boom spraying, this is mounted within easy reach of the tractor seat, and with seven indexed settings, gives control of spraying with left, center or right boom sections. There is an outlet for auxiliary spray gun, and connections for pressure gauge and relief valve. (Spraying Systems Co.) (169) ✓

For further information about any item mentioned in this column, write to What's New Department, The Country Guide, 290 Vaughan St., Winnipeg 2, giving the key number shown at the end of each item, as—(17).

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WEEDONE is acclaimed for ECONOMY. Your Weedone weed control program THIS YEAR can cost you less than 25 cents per acre for material.

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A PICTURE OF CONTENTMENT

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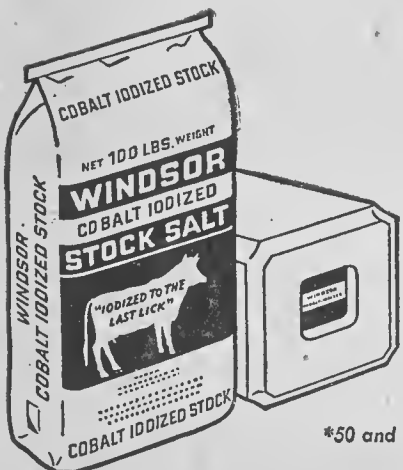
WINDSOR Cobalt-Iodized SALT comes any way you like it. Loose in 80 or 100-lb. bags,* in 50-lb. blocks and 5-lb. licks.

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WINDSOR COBALT-IODIZED SALT

"Iodized to the last lick"

*50 and 100-lb. bags west of Ft. William.



Interlocking Cement Stave Silo

ACLIFTON, Nova Scotia, farmer believes that he has come up with another first in the history of Nova Scotia. The silo he built recently is not only new, but is of a new type of structure, and is believed to be the only one of its kind in existence in Nova Scotia.

The upright silo is built of approximately 1,000 pieces of interlocking cement staves. Each stave is about 2.5 feet long, by a foot wide and 2.5 inches thick. The extra thickness, reports Don Hamilton, on whose farm the silo is located, prevents freezing, which is common in silos of wood, or poured cement. The feature which sets it apart from others is that it can be enlarged, or reduced, in size, or, if so desired, dismantled altogether. This 170-ton silo, Mr. Hamilton estimates, will hold just about enough grass silage, when used along with a small quantity of hay and some mill feed, to feed his herd throughout the winter months. His herd numbers 40 head.

He can also list a number of reasons why silage has advantages over hay. A labor-saving feature is that power machinery can be used in harvesting the crop, which reduces the acute farm labor shortage. Grass is a natural Nova Scotia crop and with a good growing season, two crops can be produced in a season, from well-cultivated land. This alone is a definite saving in the feed bill; and Mr. Hamilton definitely feels that silage reduces the cost of feeding his herd. The increases in freight rates during the past decade have forced the farmer to find a substitute for mill feeds, and the main purpose of silage is to provide high-quality roughage at a lower cost. Used properly, it can cut the quantity of mill feeds needed to one-half or less.

One of the most important advantages to the economy of the farm is that with a smaller quantity of mill feed, and silage of good quality, heavier milk production can be sustained during the winter months.

The use of grass silage is less than a decade old in Nova Scotia. In 1949, grass silage was used by only 35 farmers. In the next four years the number increased to 700; and today, it is estimated that some 900 farmers have silos on their farms in this province. Nova Scotia is predominately a grassland province, most beef and dairy farmers will agree that grass silage is fast becoming an important feed.

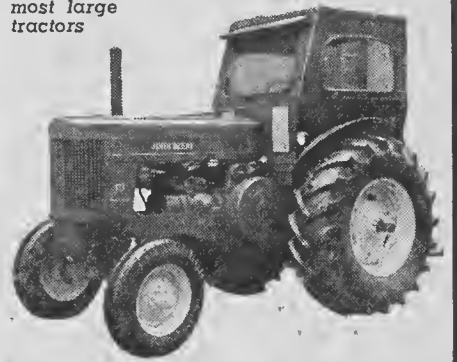


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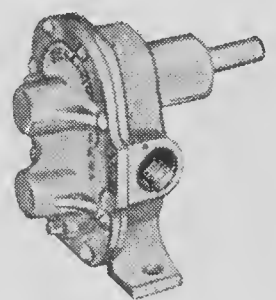
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All-Pasture Dairy Farm Best for Him

LIKE many dairymen with a limited acreage, Cliff Stannard, Penhold, Alberta, finds it more economical to buy all his hay and grain and use his land strictly for pasture. This is the system developed so successfully by E. F. Sandy Roberts of Yakima, Washington, one of North America's leading grassland farmers. By using special pasture mixtures, heavy manure applications, and irrigation water treated with anhydrous ammonia, Roberts has been able to run 80 head of Jerseys on 30 acres, and net up to \$1,000 per acre per year.

Because of soil and climate differences, and the fact that he has only been in the dairy business about six years, Cliff Stannard doesn't come anywhere near this record. But he does maintain a successful dairy enterprise with a milking herd of 38 Holsteins (half registered), plus a breeding bull and young stock, on 160 acres. This is pretty good for an area where winter temperatures have touched 40 degrees below.

An army veteran of World War II, Cliff bought his quarter section under the V.L.A. soon after his discharge. He and his wife, Betty, moved to the place in the spring of 1950, and started in the dairy business on a small scale, almost right away—as Mrs. Stannard puts it, “with one red cow.”

The decision to buy all their grain and hay was dictated by a lack of machinery and land, rather than by choice, but it has enabled the Stannards to build up their enterprise with a minimum outlay of capital. Their whole quarter-section was broken and seeded to a grass-legume mixture, and production has been kept to a high level by rotational grazing and heavy applications of manure.

ANOTHER good feature of the farm is the absence of unnecessary buildings. There is a large aluminum-sheathed loafing barn, attached to a modern, six-stall milking parlor. The stalls are of the circle gate type, each consisting of a circular steel plate with a feed box attached. A pulley device swings these up to allow the animals to enter, then lowers them again when each cow is in place. The operator can service each cow handily from a central pit located between the two rows of stalls.

(Please turn to page 36)

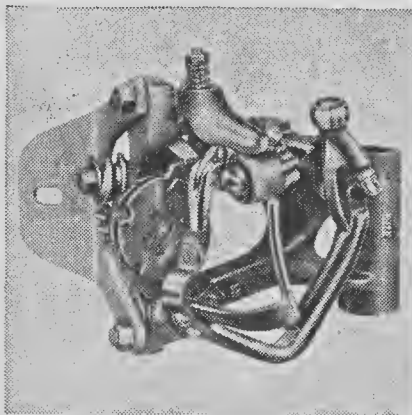


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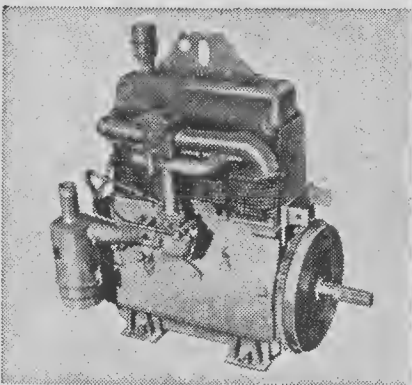
Dairyman Cliff Stannard and son Lyle, with some of the farm Holstein herd.

New **CASE** Big Bale 16x18 Baler

with **Sure-Tie Knotter**
Twine or Wire Tie
Easiest Terms Ever



“A thousand bales without a miss,” report Case owners. Super-simple sure-tie Case twine knotter with exclusive offset bill-hook saves your time and hay with its sure-fire regularity. Case wire twisters lock twist tight against bale, leave no slack, no loose clippings.



New, more powerful air-cooled engine
New Case axial-flow engine gives you pressurized air cooling to prevent overheating and over-cooling. Optional on 140 and 160 balers in lieu of V-type.

It will pay you well to ask your Case dealer about the new Case Crop-Way Purchase Plan.

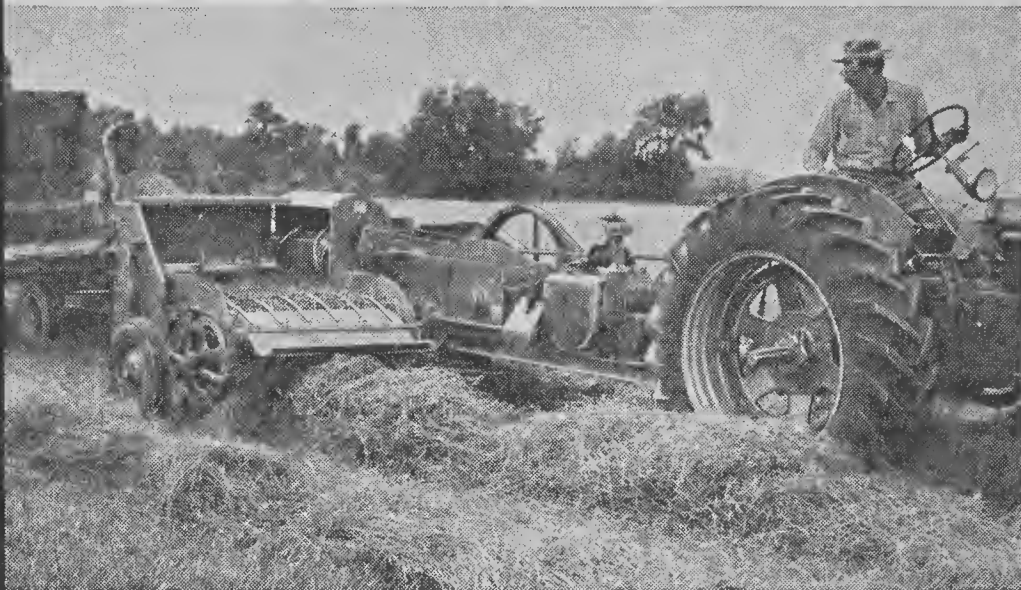


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Case 160 baler makes 16x18 bales of uniform length up to 12 tons per hour—twine or wire-tied.

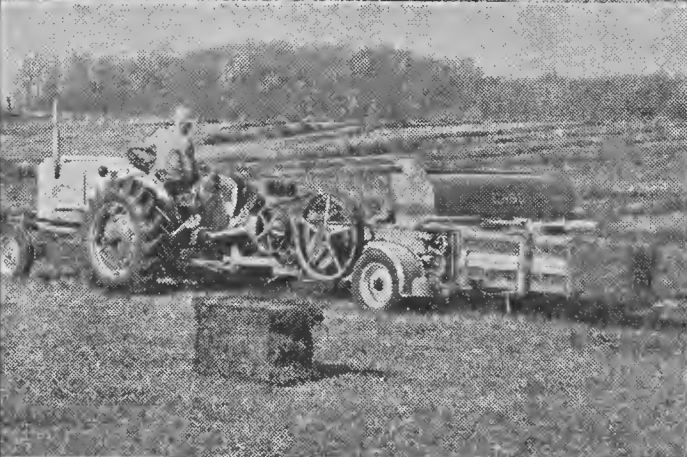


Sensational Baler Deal!

Case balers are the easiest of all to buy, to adjust, to run . . . and they bale a steady stream that'll keep your stacking crew jumping. Drop in on your Case dealer and get the lowdown on the easiest-ever terms. See all three Case baler sizes and get a demonstration of the one that fits your farm or ranch. Case big-tonnage balers 160 (above) and 140 (below) have the double plunger that slices, then compresses, each hay charge, splitting power peaks for increased capacity and economy. They tie for keeps with twine or wire, turning out ton after ton without a miss. Case twine knotters and wire twisters are mounted on unit frame for permanent alignment.



Case 140 baler makes 14x18 bales of uniform length, wide range of settings. Both the 140 and 160 (above) give you choice of V-type or new Case air-cooled engine or PTO drive, ground or power-driven pick-up, automatic twine or wire tie.



New 14x18 Case 133 baler brings to the low-cost class big-baler features like overhead hay-folding feed, full 26-inch stroke for fast baling in heavy hay, six hay dogs for neat, firm bales. Sure-tie knotters are positively timed.



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. . . with high-strength, full-measure Case baler twine, treated to resist rodents, insects and mildew damage. For catalogs or folders, check items that interest you. J. I. Case Co., Dept. CG-47, Racine, Wis.

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All the Stannard cows are fed outside the loafing barn, in a small yard that is protected on all sides by high stacks of baled feed. Cliff intends to build a feeder inside the barn later on, so they can have a choice of inside or outside feeding. To date, however, there has been no appreciable drop in milk production during cold weather.

For herd replacements, Stannard will breed his bull to 15 of his best cows, but the remainder will be bred by artificial insemination. If he had more land and machinery, Cliff would

like to grow enough feed to start a silage program, but he doesn't want to go into farming too heavily, because he would need hired help for that. Like grassman Sandy Roberts, Stannard believes he can do better by keeping his operation down to a one-man show.

"Single men won't work for farm wages," he pointed out, "and if you get a married man, you have to build him a house." This ably sums up one of the biggest problems facing farm operators today—farm labor. V

Blossom-Time Vegetable Harvest

Diversification of crops and spreading work over the year makes it profitable



[Guide photo]

The greenhouses on this Ralph Wright farm at Harrow, Ontario, help to diversify crops, labor, and farm income. Crops vary from apples to egg plants.

MAY is seeding time in most of Canada, but in at least one Ontario area, when the warming sun turns the bare orchard branches to bowers of fragrant bloom, it ushers in not only blossom festivals, but harvest time as well.

That is the case on the 42-acre fruit and vegetable farm of Ralph Wright and his son, Don, at Harrow, Ontario. Like many small-acreage farmers in this garden-land, they have found the secret of prolonging the selling season the year round.

Mainstays of their farm are orchards and gardens. In fact, peaches, sweet and sour cherries, plums and prunes have been grown successfully in the district for decades. Acreage is increasing, too, and the answer of fruit growers in the Leamington-Harrow district, to pessimists lamenting the loss of Niagara's famous fruitland to industry, is that their area can plant the orchards to replace those in Ontario's famous peninsula.

THE Wrights grow ten acres of peaches, ten of dwarf apples, three of prunes, and two of sweet cherries. Their garden land grows cucumbers, melons, peppers, egg plants, all under irrigation, because they have only to drive sand points into the ground to get a plentiful water supply. They grow gladioli as an additional cash crop.

To supplement their field crops, and stretch out the season of cash returns,

the Wrights have turned to greenhouse farming. Now they have 15,000 square feet under glass.

The May day they were visited by The Country Guide, farm workers had harvested tomatoes all morning. Afternoon found them transplanting two acres of cucumbers outdoors.

The four big greenhouses provide a place to seed tomatoes in pots in early December. These are transplanted to the steam-sterilized soil of the houses in February; and the tomatoes ripen on the vines that fill the glass houses during May, June and July, before outdoor tomatoes are ready.

When the tomato season is over, the houses are given over to chrysanthemums, as another cash crop. V

Don't Let Wild Oats Start

IN a district where wild oats abound, Leo Casey has the distinction of having fields that are practically free of pests. There's no magic formula for weed eradication on the Casey farm; it's simply a case of checking them before they get started. But such a statement implies a lot of hard work and care. As with other freedoms, the price of freedom from weeds is eternal vigilance.

Leo has about 1,120 acres a few miles east of Plato, Saskatchewan.

With the help of his son Edward, he farms 680 acres of it, and keeps the remainder under a permanent cover of grass. Half of the farmed acreage is summerfallowed each year, and this is cultivated four times in a season to keep down weeds and volunteer grain. The rest is used for the production of registered wheat seed (Selkirk and Chinook last year), which is the main business of the farm.

The first fallow cultivation is done with a oneway disk. If the land is dry, a cultivator is used for the second treatment, but in wet years, the fields receive another disking. Later on, a rod weeder is used for the third and fourth cultivations. Stinkweed and yellow mustard are kept down by a yearly dusting with an ester of 2-4,D at five pounds to the acre.

Because weeds are a disaster on a seed farm, the wheat crop is guarded as diligently as the gold reserves at Fort Knox. When the grain is up, Leo regularly sweeps the fields with a pair of binoculars to see if any wild oat plants or other wheat varieties are showing above the stands. When located, weeds or "rogue" heads are pulled out by hand.

As the bulk of the weed seed is spread in the fall, Leo takes special precautions at harvest time. The first round of the combine is made in a counter-clockwise direction, with the straw spreader removed, so that the straw is laid in a tight windrow, well in from the edge of the field. From then on the cut is made in the regular direction, but the straw spreader remains off for two more full rounds. Weed infestations and volunteers from other crops generally begin at the edge of a field, and a device that spreads straw will also spread unwanted seeds, which accounts for these special precautions.

"Sure it involves a lot of extra work," Casey admits, "but it pays dividends in the long run."

"Nick Chick" Delivers the Eggs

LIKE producers of cattle or hogs, poultrymen are continually looking for a breed which will give maximum production for a minimum outlay of feed. In the past two years there has been an increasing interest among Canadian poultrymen in a U.S. imported breed called the H. & N. "Nick Chick." This has been produced by the crossing of two pure strains of White Leghorns whose genes "nick", or combine well with one another to give the desired characteristics. In other words, this is intensive inbreeding, as opposed to the crossbreeding now being carried on by many cattlemen.

Developed at Riverside, California, and Kirkland, Washington, the "Nick Chick" White Leghorn comes from a balanced breeding program to find a bird with various egg production factors. These include albumen quality, lack of blood spots, shell strength, and quantity, rather than any spectacular advance in one particular factor. It is a small-framed bird with a large body cavity, capable of producing a large number of eggs on a minimum consumption of feed. The "Nick Chick" Leghorn is strictly an

egg producer. It is practically useless as a meat bird, and cannot be satisfactorily crossed with any other breed.

But in its own specialty, it has few equals. Five different groups of these birds averaged 258 eggs per hen each year for five years. In New York and Wisconsin tests (1955 and 1956) they were first among light breeds in over-all egg quality. They have shown a livability record of 85 per cent in 11 years of official testing, one reason being that they were specially bred for leukosis resistance.

The strain is so new in Canada there hasn't been time to get many flocks out on our poultry farms yet.

Breeding stock was first brought into this country two years ago, and chicks are now being produced at franchised hatcheries in the four western provinces. This might be extended east to Ontario this year, as poultrymen there have shown interest in the new chicks since they first appeared. All franchised operators must attend instructional classes at the H. & N. research laboratory every year.

In the meantime, poultry farmers working with the "Nick Chick" Leghorns have had some very satisfactory results. Clarence Klammer of Vegreville, Alberta, had a 75 per cent egg production from this strain after the

first six months. John Giebelhaus, Holden, Alberta, reports that his flock was hatched on February 7—by August 3 they were laying 55 per cent, and they reached 89 per cent by September 1. Production finally levelled off at 85 per cent, which has been maintained ever since.

Like the search for a better beef animal, the search for a better egg layer is still going on. Most researchers in this field are convinced that the physiological limits of the hen haven't been reached yet. Whether the intensive inbreeding of various pure strains within a particular breed is the answer remains to be seen.

ANOTHER SUCCESSFUL POULTRYMAN FEEDS PIONEER EXCLUSIVELY



Jim Dunbar is seen checking his efficient egg production records with Pioneer Feed representative J. Lorne Webb.

With a capacity for 3,000 laying birds, J. M. "Jim" Dunbar, owner of Chicdale Farm, Wroxeter, Ontario, is naturally interested in lower costs and more profit on his efficiently operated poultry farm.

Jim follows the Pioneer feeding program exclusively and keeps detailed records on his costs. He likes the good service that he gets from the Company too.

6 lbs. Less Feed Daily Per Hundred Birds—With Same Egg Production

His Shaver Leghorn and Hy-Line birds reached their peak production of 84%, five weeks after they started laying. After five months of laying his birds were still giving him 78% production.

In May, 1955, Jim discovered that his layers on the Pioneer 16% laying ration (a high efficiency all-mash laying ration) consumed 6 lbs. less feed per 100 birds daily and maintained the same high egg production.

Feed Costs 15.7 cents per Dozen Eggs

During this five-month production period, Jim figured out his feed costs at 15.7 cents per dozen eggs.

Keeping records has proven profitable for Jim. For example, he has also found that per pullet housed, it costs less to raise his replacement flock in confinement.

His records also show that the most profitable program is to lay his high-production birds for ten months. Then, after a forced moult, they are back into production at the end of seven weeks and lay profitably for another seven months, with excellent shell texture and egg quality.

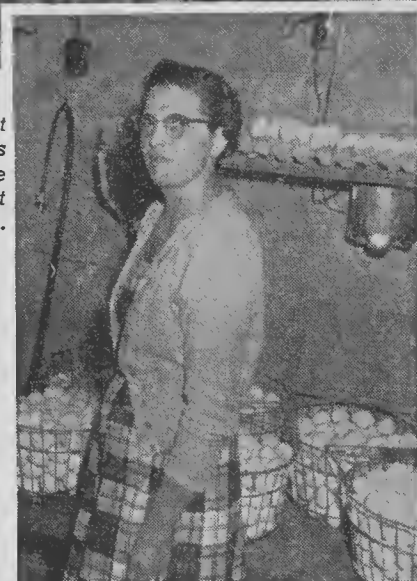
Jim Dunbar's records prove that you too can produce eggs more profitably with efficient management and Pioneer High Efficiency Rations. Drop in today and discuss it further with your nearest Pioneer dealer.

"I Cut My Egg Production Costs on PIONEER All Mash Ration"

stated J. M. Dunbar,
Wroxeter, Ontario



Good management and good feed gives the Dunbars more egg production that is extra profitable.



Mrs. Dunbar takes pride in the production of top-quality eggs that sell at a premium. This well-constructed egg room retains the quality.

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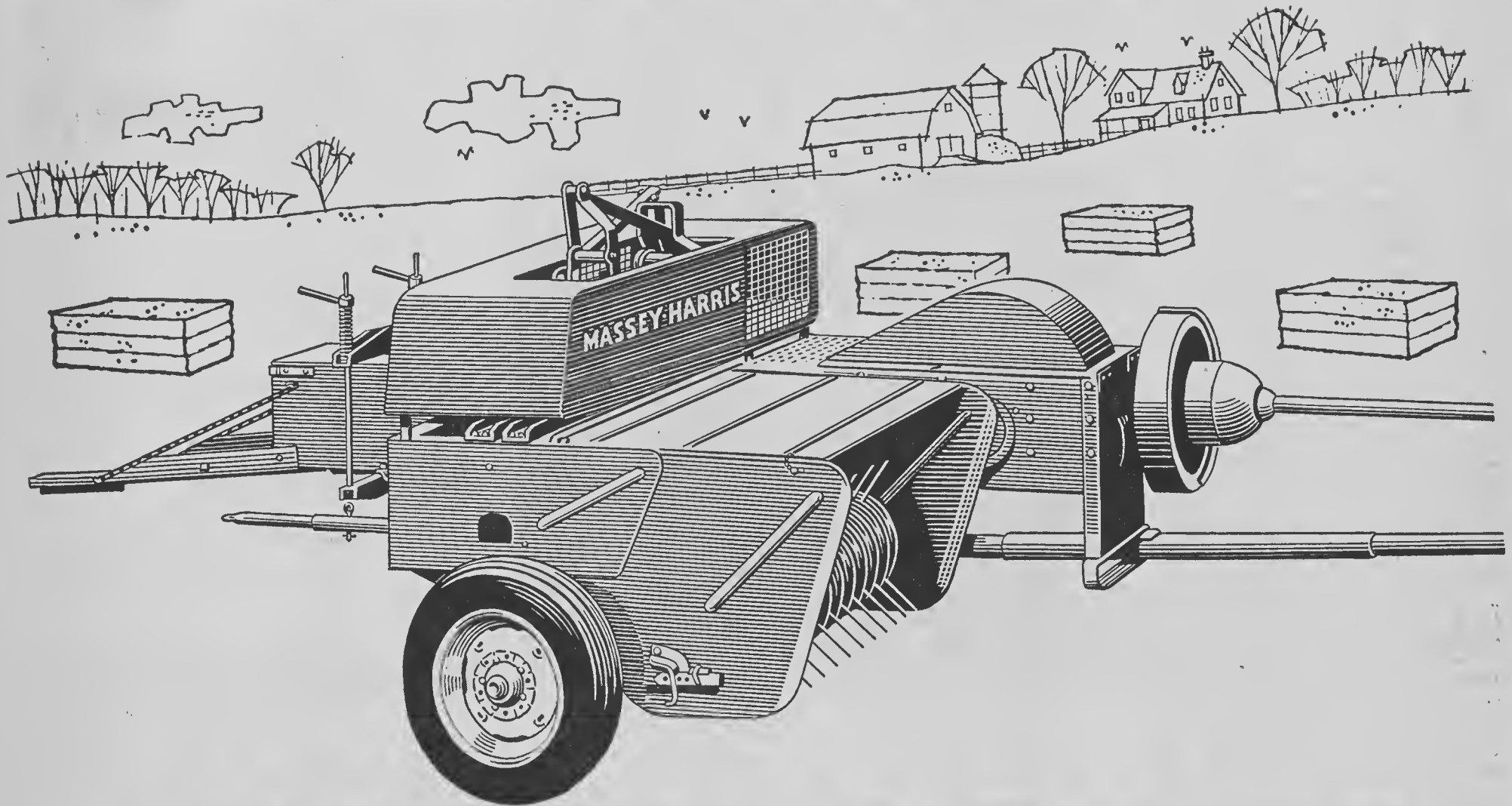
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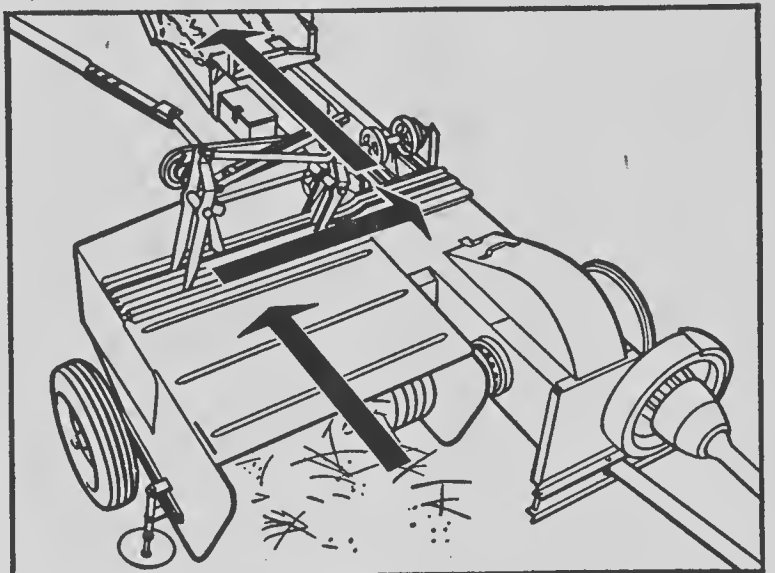
Best baler buy for the family-size farm

Compact...economical...efficient, the new Massey-Harris No. 3 Baler delivers well-tied bales at high capacity. And because the hay makes only half the usual number of turns, it's handled more gently...keeps its food value high. Check the integrated twine box, shearing bolt and swing hitch... features that make the No. 3 leader in fast, easy, cost-cutting operation. Choice of power take-off or engine drive models.

NEEDS NO LUBRICATION

The No. 3 Baler is a real time-saver too! Sealed bearings, oilite and nylon bushings eliminate the need for continual lubrication... once-a-year checking is all it needs.

See your Massey-Harris dealer, have him show you all the advantages of the New Massey-Harris No. 3...best baler buy for the family-size farm.



GENTLE HAY HANDLING — Simplified material flow in the M-H No. 3 means that the hay-handling operations have been cut down... now the hay changes direction only twice. Gentle leaf action insures uniformly compressed bales... keeps the leaves on the stalks... the milk and meat producing protein content high.

Massey-Harris-Ferguson Limited

TORONTO

CANADA

Co-op. For Gardeners

They changed a wild marshland into fertile gardens, and joined together to sell their crops

THERE is no use growing crops if you can't sell them. This has been the cry of many farmers during the past few years. But go down to the Klondyke and you will find a group of farmers who took raw land, made it yield big crops of garden vegetables, and found a way to sell the produce.

The Klondyke is a marsh on the shore of Lake Huron, in western Ontario. It is actually an extension of the old Thedford marsh. Less than a decade ago, it grew wild with marsh weeds. Now, 1,500 acres of it is drained and cleared, and is producing lettuce, potatoes, celery, carrots, onions and other garden crops.

The Klondyke development has been a dramatic one. The fertile marsh lay undrained and idle, waiting for a man of vision to exploit it. Then, a successful Delhi tobacco grower, Gerry Vanden Bussche, came along. He was confident the marsh could become a garden, so he bought 1,000 acres of it from the Canada Land

against another, and buying at bargain rates. The gardeners, most of whom were immigrants from Holland and Belgium, were quick to realize that this system meant low prices and also prevented them from putting out a top quality product. They decided that these disadvantages could best be overcome by forming a co-operative to handle their crops.

DURING the first year, the new co-operative rented an old barn and sold its produce through a central marketing board run by the Association. Dealers were forced to buy from the board, rather than from individual growers.

At the end of the first year \$100 shares were sold in the Co-operative.

The people who make no roads are ruled out from intelligent participation in the world's brotherhood.—Michael Fairless.

Company. He began to develop the area in 1948 by tearing drains through the tangled growth to get rid of surface water, and dividing the area into fields. He persuaded settlers to take up land and provided them with implements and other assistance to get them started. In a relatively short time, he saw his vision become a reality.

One of the earliest settlers was Cornelius Stokkermans, a university graduate from Holland, who liked the deep, fertile peat at the Klondyke, and staked his future on it.

For the first couple of years, lacking capital to equip their farms, the settlers shared machinery and equipment. They made use, too, of the Thedford Co-operative Cold Storage on the neighboring marsh, to cool and store their produce.

Today, nearly all the marsh gardeners are selling their produce through the Klondyke Gardeners' Co-op. Limited. Still, they didn't always do it that way. When operations first began dealers went from farm to farm offsetting one grower



"I think it's measles."

**One easy operation—prepares—cultivates—weeds
... when you let *Roto-Hoe* do it!**

Specially hardened steel teeth, revolving at over 300 r.p.m., break up and aerate your soil—cutting and mulching weeds to produce a perfect seed bed. Compact design permits between-row cultivation.

TRIM YOUR LAWN—cut high grass or weeds, with the *Economy* 20" Roto-Cutter or the new 22" Self Propelled unit. The 2 H.P. Roto-Hoe, favourite for small gardens since 1936, has dependable 4 cycle (no gas and oil to mix) engine, tills 11" wide and up to 6" deep.

Ask for a demonstration of the new, larger Model 300 Roto-Hoe with 3.3 H.P. engine. The 26" cutter is one of six handy attachments available.

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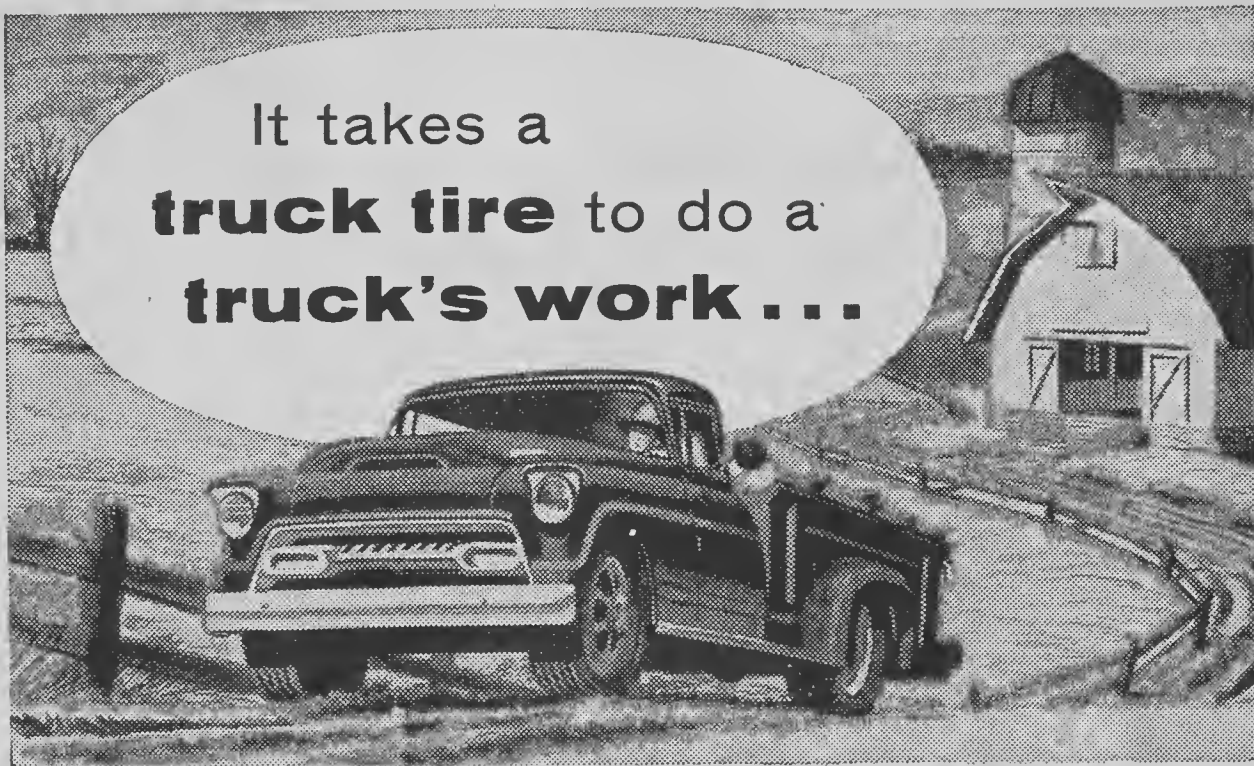
GRAIN BELT FARM EQUIPMENT LTD.,
1348 Halifax St.,
Regina, Sask.

NORTHWEST FARM EQUIPMENT LTD.,
Box 351,
Calgary, Alta.

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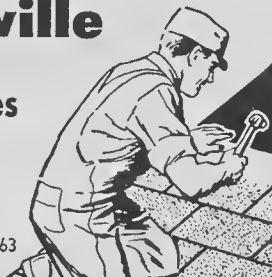


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B-2063



Free Booklet

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Then, aided by a federal government grant under the Cold Storages and Warehouses Act, and a loan from the provincial government, the Co-operative, with Cornelius Stokkermans as president, began to erect a cold storage building. The storage was completed in 1954, and the support for the co-operative was so good that it was possible to extend the building in 1955. Now they have a \$65,000 building, measuring 87 by 100 feet, including a 40- by 60-foot refrigeration room. Last year the Klondyke Gardeners' Co-op. did over \$50,000 worth of business in each of head lettuce, potatoes, and factory carrots, and made sizable sales in other crops as well. In fact, after contracting for 200 tons of carrots for processing, they ended the year with sales of ten times this amount.



Harvesting potatoes on Gerry Back's garden farm in the Klondyke marsh.

THE growers are currently pooling prices for the highly perishable, but sometimes profitable, lettuce crop. Before they joined together to do the production and marketing job, lettuce brought them plenty of grief, because of spoilage and low quality. Now they find that with a central pack, they can turn out a better product, and often obtain larger orders than they could by working individually.

The Co-op. has developed the brand name, Gold Rush, for its best lines of produce. Equipment has been installed to wash potatoes and other vegetables. During the harvest season, the busiest spot on the marsh is the warehouse and cold storage plant.

Vegetables are rushed, in early morning if possible, from the field to

the cold storage, where field heat is removed. The vegetables are graded and washed. Since the Co-op. does not plan on storing produce for long, it attempts to turn it over quickly, to make room for other deliveries. The gardeners do much of their own work in the building, working many evenings after a day in the fields.

While you do not see great wealth around the Klondyke, you sense, in talking to its people, that things are progressing well. The fertile peat is yielding good crops. The Co-op. has brought order and some stability to the market. This group of new Canadians are succeeding in the development of a new resource for Canada. In doing so, they are assuring their own welfare in their adopted land.

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Improved Range Adds to His Profits

"CRESTED wheatgrass is a god-send on the range at lambing time," says sheepman John O'Connell of Pennant, Saskatchewan. "It comes in early in the spring and provides good grazing at a time when we need it badly."

John runs about 1,300 ewes and 100 Hereford steers on 20 sections of grazing land in the sandy, southwest sector of the wheat province. He has had up to 1,000 acres seeded to crested wheat, and plans to seed more, but this time he intends to try some of the newer, improved strains.

The O'Connell flock is predominantly Ramblay breeding. Their main winter ration is wild hay, augmented

The dissenting opinions of one generation become the prevailing interpretation of the next.—Burton J. Hendrick.

by some 3,000 bushels of oats and barley. Come lambing time in the spring, the ewes need a high-protein feed, rich in vitamin A. That's where the crested wheatgrass comes in, because the animals can be put out to graze before the natural range would normally be able to carry them.

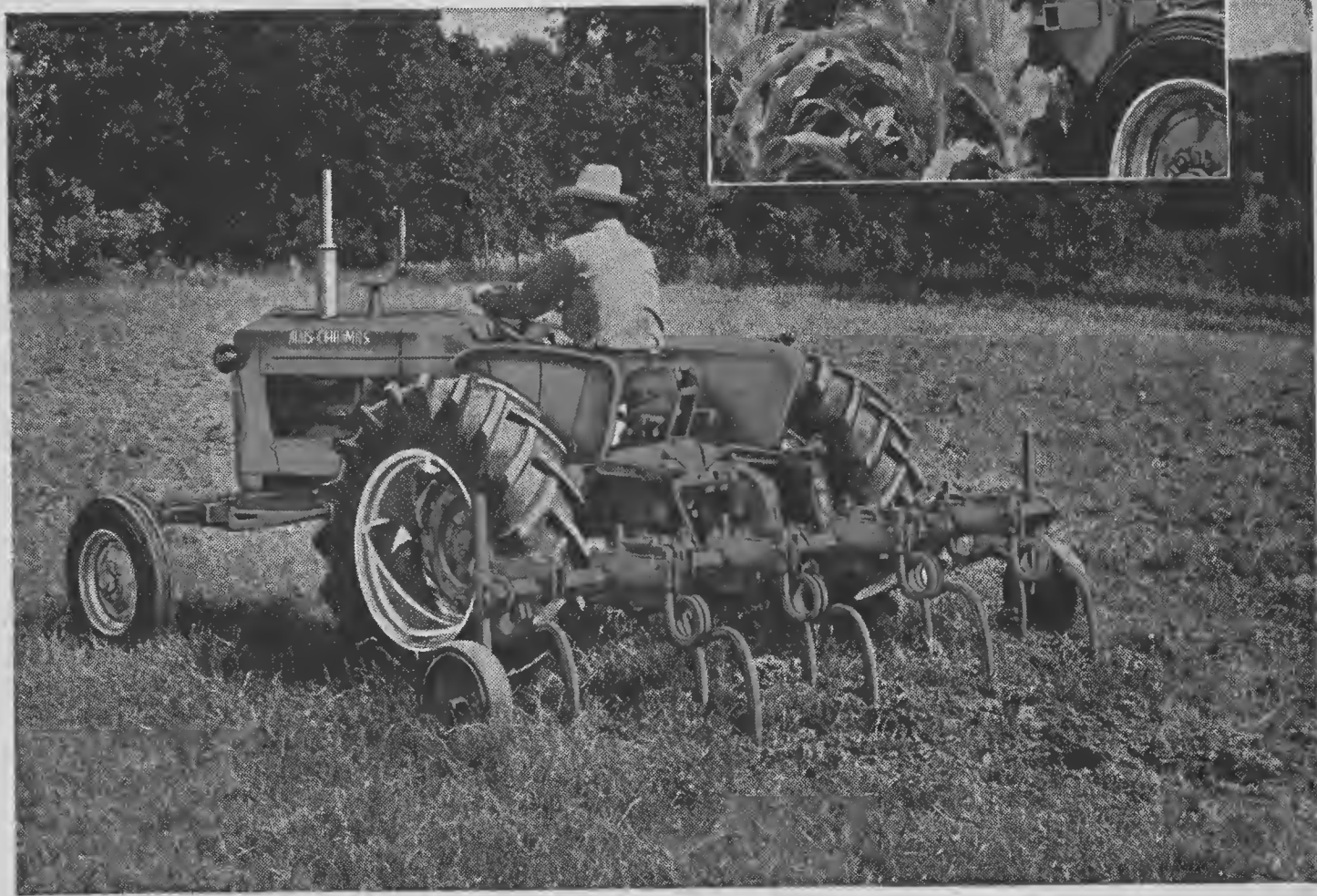
In the past few years, John's losses have been confined to four animals per winter. Lambing last year ran about 97 per cent of the total ewe flock. That means only three dry ewes out of every 100, which is a pretty good average in any man's country.

Away back in 1927, O'Connell left Montreal for the west with the idea of becoming a sheep rancher. He wasn't able to realize his ambition right away, chiefly because of a lack of money. When he landed at Cabri, Saskatchewan, he had only about \$1.50 in his pocket, but by working out for awhile, he was able to make a start in wheat farming. By then, of course, it was the Thirties, and the dust bowl caught up with him. John, then switched to cattle, but lost most of these in the bad winter of 1935-36. After that, he gradually built up his sheep enterprise. It seems that John O'Connell was destined to be a sheepman.



John O'Connell with one of his lambs on the range south of Pennant, Sask.

Farming steps years ahead



NEW dynamic D-14 tractor with exclusive new Power Director



New Low-Line, High-Crop design... and an exclusive new way of directing power and speeds at will—

The Dynamic D-14 introduces a new tractor concept!

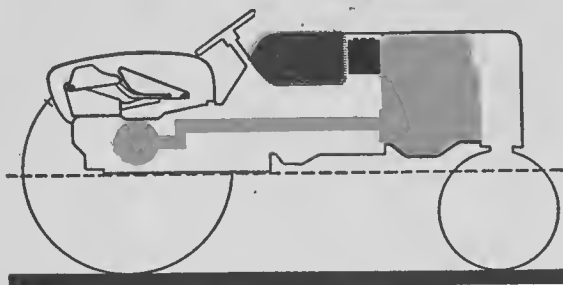
- ★ New Power Director gives you 8 speeds ahead. Quick-shift to high or low range *on the go*... operating with constant-speed, live PTO. You've never experienced anything like it!
- ★ New Roll-Shift front axle spaces front wheels without blocks or jacks. And naturally, *the original* Power-Shift rear wheels, too! Power Steering if you want it.
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BOOSTER system controls traction weight on rear wheels, *automatically*.

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- ★ New D-14 cultivator is easily mounted. Gangs roll in like a rubber-tired wheelbarrow. Rear-mounted implements interchange with WD and WD-45 Tractors. SNAP-COUPLER hitch—of course!

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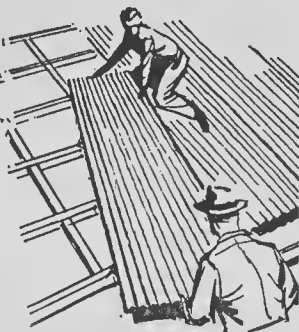
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Vest Pocket Threshing Outfit

The steamer once pulled two fully grown men along in a boy's wagon



[Guide photo

Lawrence Graham of Camrose, Alberta, poses in front of his home with the perfect working models of an old steamer and threshing outfit he has made.

MOST old-time farmers will recall what the 1918 Case steam tractor looked like, but that's about as far as they would care to go. Few of them would want to try their hand at building a working model, especially if they had to do it from memory. For a man who is neither a farmer, nor an old-timer, to attempt it, would be even more ridiculous. But there are always exceptions, and one such is garage-owner Lawrence D. Graham, Camrose, Alberta. And just to prove it wasn't a fluke, after he'd finished the engine, he built a grain separator to keep it company.

Back in 1922, when Lawrence was in his late 'teens, his parents moved from their native Missouri to a farm near Drumheller, in the east-central part of Alberta. Across the way, on the farm of a neighbor, stood a big Case steamer. Lawrence used to haul bundles of grain to the monster at harvest time; and some day, he promised himself, he'd build a model just like it. That day was 24 years in arriving, including the six years of patient labor from start to finish. The engine was such a success, however, that Lawrence later devoted another three years to building a threshing machine to go with it. This time, he didn't rely on his memory, but used a photo of a thresher clipped from a newspaper.

"How big are these machines?" you ask.

"Just a minute," Graham answers, "I'll get a ruler and see."

That's the amazing thing about the whole business. Each of the tiny parts was made in proportion to the part it fitted to, with nothing but the naked eye to gauge its accuracy—no scale, no plans, and no mathematical calculations. Lawrence can't be bothered trying to remember the actual measurements of his machines, so he just whips out a ruler to make sure there won't be any mistake.

The engine is a wood burner; it measures 11¾ inches high, and 24 inches long, and weighs about 47 pounds. Although the boiler is tested for 150 pounds per square inch, it generally operates on a pressure of 25

pounds. The crown sheet (the part of the boiler that sits over the fire) is three inches wide, four inches long, and one-quarter of an inch thick. Cylinder bore size is three-quarters of an inch, and the stroke one-and-an-eighth inches. All the details of an actual Case steamer are contained in the model, including forward and reverse gears, whistle, pop-valve, governor, throttle, two water pumps (one of them automatic), differential, and blower. The glass water gauge is an old auto ignition system fuse.

ALSO modelled after a Case machine, the grain separator weighs 35 pounds, is about 30 inches in length, and stands 17 inches high. Like the engine, it has been built with careful attention to the accuracy of each working part; it'll thresh grain and blow straw and chaff through the blower as lustily as did its life-size counterpart. Except for the feeder and elevator chains, plus various brass pipes and fittings, all components of both of the machines have been home-made.

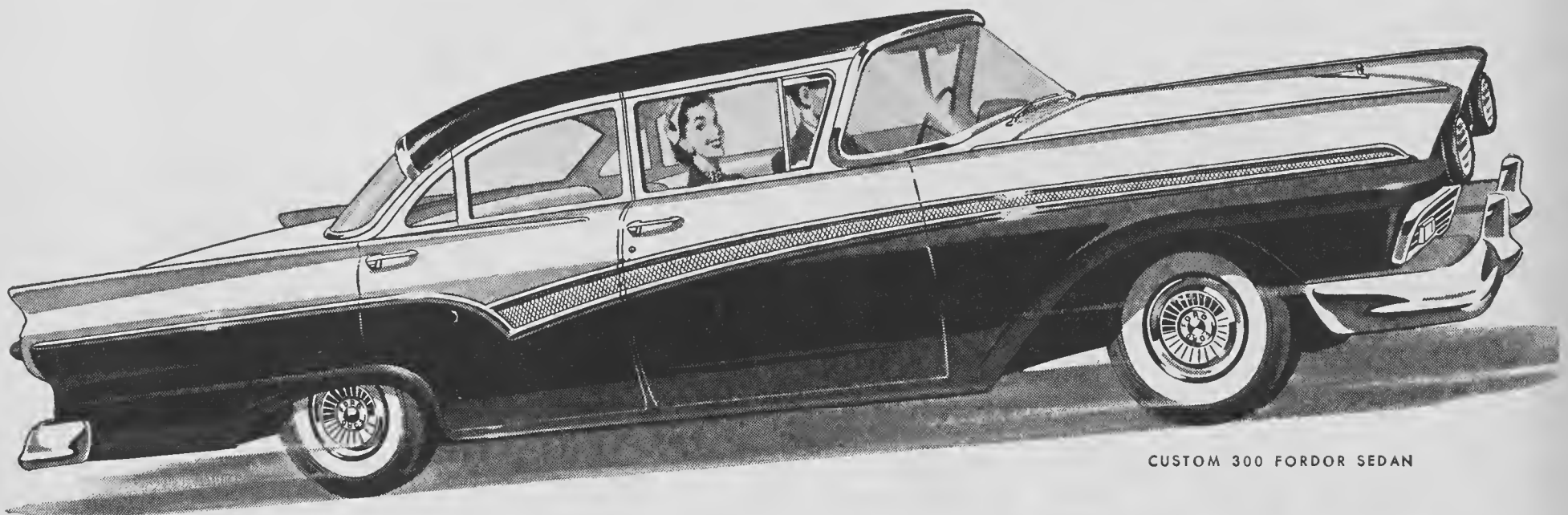
To test his engine's pulling power, Lawrence took it to work one day and hooked it up to a boy's wagon on the concrete floor of the garage. The little machine pulled two 135-pound men in the wagon—a total weight of about 275 pounds.

Believed to be the only models of their kind in Canada, the engine and separator have been exhibited at several agricultural fairs and exhibitions. Before the thresher was finished, the engine was entered in the hobby show of the Pacific National Exhibition at Vancouver, where it won first prize in its class, and was named second best entry in the whole show. At the Camrose fair last year, so many people crowded the booth to see the engine and thresher in action, the owner was forced to take his models home as they were in danger of becoming damaged.

"All I need now is for somebody to come up with a strain of miniature wheat," Lawrence grinned, "then my threshing show would really draw a crowd."

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Pick your own brand of ginger in the new kind of Ford! You can have the world's best-selling V-8 in any of Ford's 18 styled-for-tomorrow models. Or you can choose the Mileage Maker Six in any Custom or Custom 300 model, in the Ranch Wagon, the Del Rio Ranch Wagon or the Six-Passenger Country Sedan.

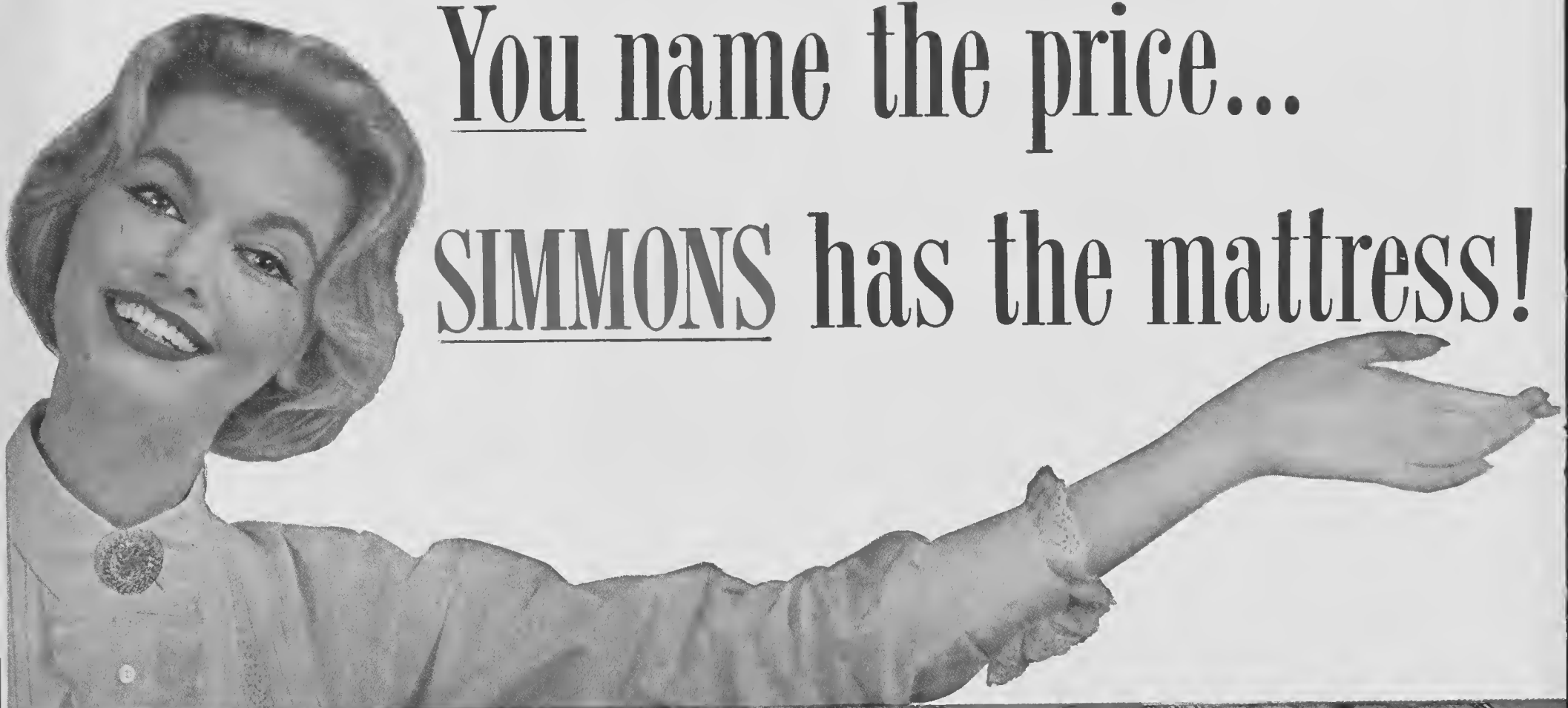
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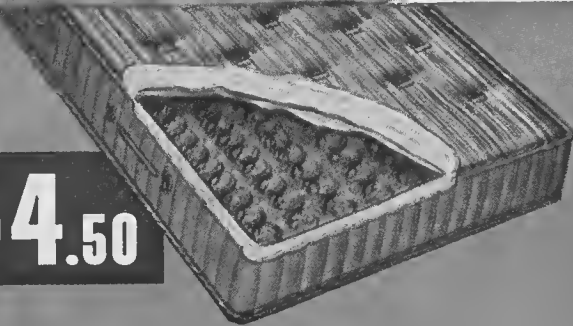
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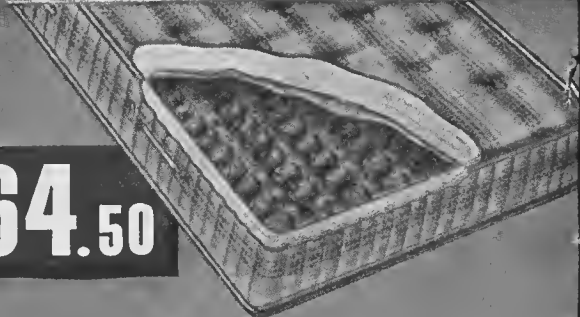
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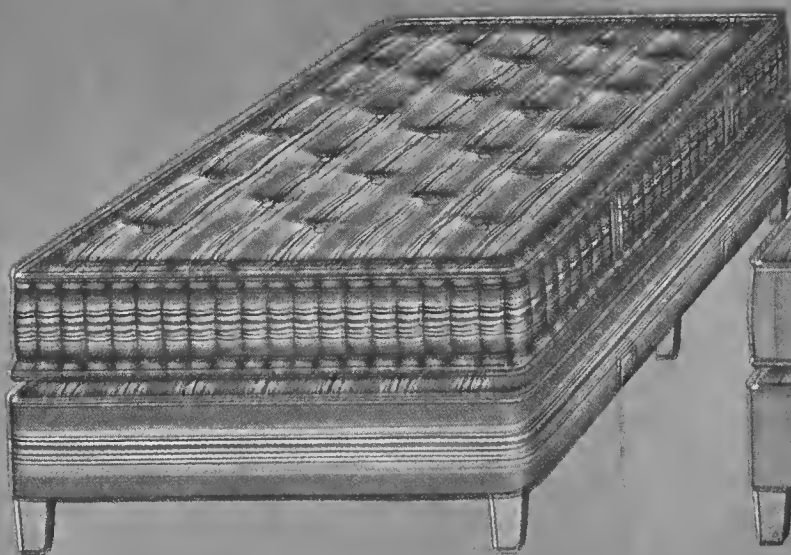
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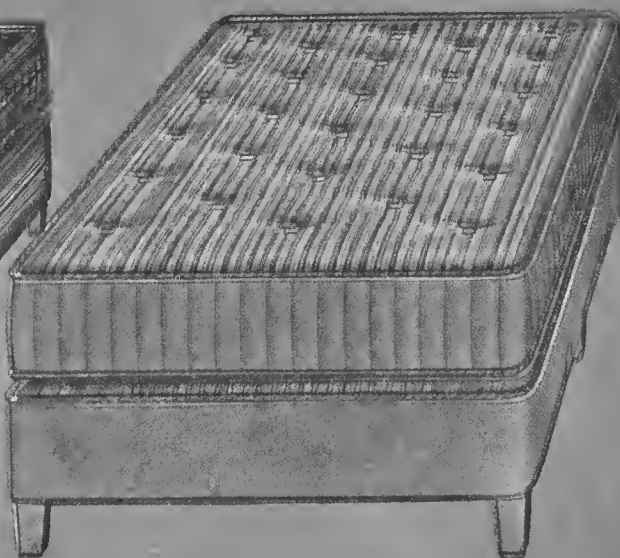
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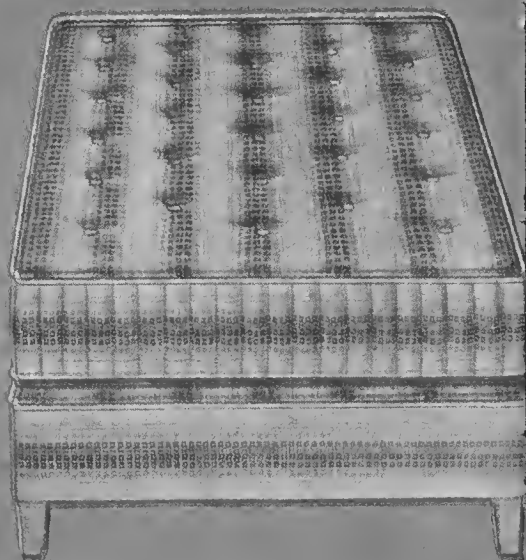
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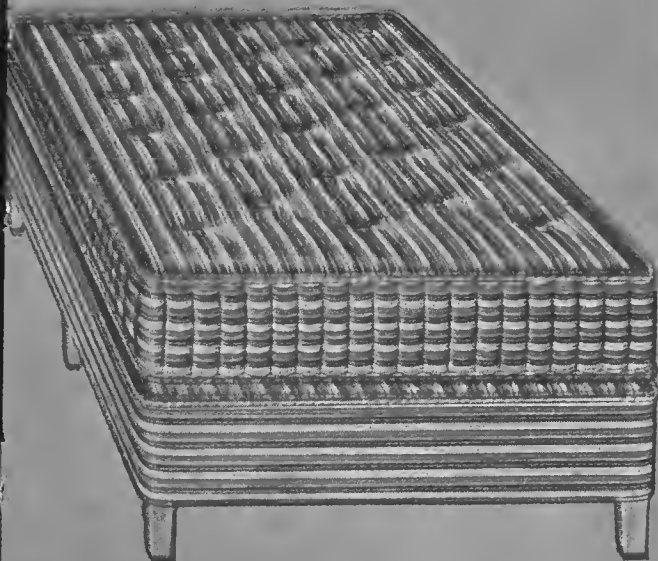


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New Place For Berries

WITH the provision of a new freezing plant on Prince Edward Island, growers are looking at strawberries with new interest. Acreage doubled in the last year to 500. Even before that, some berries were being frozen in a government plant at Charlottetown.

Now, growers have high hopes that the up-and-down strawberry business is finally going to push ahead on an even keel, to bring regular profits to those skilful enough to produce good yields.

Malcolm Reeves of Southport, who has a 65-acre fruit farm with apples, sweet and sour cherries and plums, and who grows six acres of strawberries between the rows of young orchard trees, is one who has plenty of confidence that berry growing is going to stay more profitable.

He has been active in the Charlottetown Strawberry Growers' Association, and recalls the days in the late 40's and the early 50's, when a surplus of berries pushed prices down as low as ten cents a quart to growers. Then the growers organized to ship by air, or express, to Boston, and pushed their prices up to more realistic levels. Then they began to process their own berries and this proved more profitable than shipping.

Now, prices bring the growers about 21 cents a quart—and growers hope that the new freezing plant will at least maintain those prices.

Berry growing is a tricky and high-cost job. Mr. Reeves, a university graduate who returned to the home farm, one of the few fruit farms on the Island, is using virus-free plants now, with noticeably improved results. Two years before planting he begins preparing the land. He partly summerfallows it, then seeds to buckwheat, letting it re-seed itself for a second year. Then, before planting the berries, the land gets about 1,000 pounds of 3-15-6 fertilizer per acre. Later, in June, the crop gets 100 pounds of ammonium nitrate per acre, and another 100 pounds in August. The following year, the single crop is harvested from the field, before it is plowed under.

As long as they have a processing plant to take the crop when the home fresh market is saturated, Island growers are hopeful that strawberries will be a sound new crop for them. V



Malcolm Reeves and son Ron examine new interplanted strawberry plants.

Bake it with MAGIC and serve it with pride!

Ginger Cream

DEVIL'S FOOD

GINGER-CREAM DEVIL'S FOOD

$\frac{1}{2}$ cup cocoa	3 tps. Magic Baking Powder
$1\frac{1}{2}$ cups fine granulated sugar	$\frac{1}{2}$ tsp. baking soda
$1\frac{1}{3}$ cups milk	$\frac{1}{2}$ tsp. salt
2 cups sifted pastry flour or	9 tbsps. butter or margarine
$1\frac{1}{4}$ cups sifted all-purpose flour	2 eggs, well beaten
	$1\frac{1}{2}$ tps. vanilla

Grease two 8-inch round layer-cake pans and line bottoms with greased paper. Preheat oven to 350° (moderate). Combine cocoa and $\frac{3}{4}$ cup of the sugar in a saucepan; gradually blend in $\frac{3}{4}$ cup of the milk; bring to the boil, stirring until sugar dissolves; cool thoroughly. Sift flour, Magic Baking Powder, baking soda and salt together three times. Cream butter or margarine; gradually blend in remaining $\frac{3}{4}$ cup sugar. Add well-beaten eggs part at a time, beating well after each addition. Stir in cold chocolate mixture. Combine remaining $\frac{3}{4}$ cup milk and vanilla. Add flour mixture to creamed mixture about a quarter at a time, alternating with three additions of milk and vanilla and combining lightly after each addition. Turn into prepared pans. Bake in preheated oven 40 to 45 minutes. Cover one layer of cold cake with the following Ginger-Cream Filling; let stand about $\frac{1}{2}$ hour then cover with second cake. When filling is set, top cake (or cover all over) with whipped cream; sprinkle with toasted sliced almonds and chopped ginger and serve immediately. Or cake may be topped with any desired frosting.

GINGER-CREAM FILLING: Scald $1\frac{1}{2}$ cups milk and 2 tbsps. cut-up preserved or candied ginger in double boiler. Combine $\frac{1}{4}$ cup granulated sugar, $2\frac{1}{2}$ tbsps. corn starch and $\frac{1}{4}$ tsp. salt; slowly stir in milk mixture. Pour back into pan and cook over boiling water, stirring constantly, until smoothly thickened; cover and cook, stirring occasionally, until no raw flavor of starch remains—about 7 minutes longer. Slowly stir hot mixture into 1 slightly-beaten egg; return to double boiler and cook over hot water, stirring constantly, for 1 minute. Remove from heat; gradually stir in 1 tbsp. butter or margarine and $\frac{1}{4}$ tsp. vanilla. Cool this filling thoroughly before spreading on cake.

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Gus Lindgren And His Moose Family

Once there was only Patsy, but now there are Patsy's children and grandchildren—and what problems they create

by BERRY RICHARDS



Gus Lindgren and two of his several moose pets who grow big and eat much.

THERE is another Jack Miner struggling for recognition in Northern Manitoba. He is a trapper at Iskwasum Lake and his name is Gus Lindgren. Unlike Miner, of bird fame, Gus specializes in moose; not just one of them, but six, and they increase regularly every year.

Gus is an old-time trapper who has lived for 20 years north of Cranberry Portage, Manitoba, off the main highway to Flin Flon. Like most northern trappers, he depended on the moose for his meat supply. He says he has never shot a moose since Patsy arrived.

He found Patsy on the lakeshore eight years ago. She was a deserted moose calf, probably one of twins, deserted by the mother because of lack of food. Gus says that when a cow moose is unable to feed twins, she deserts or destroys one of them. This probably happened to Patsy, because she was at death's door when Gus found her.

Being a kindly man, and probably lonely, as most trappers are, his sympathies were aroused, and he picked up the calf, loaded her into the canoe, and brought her home to his cabin. Patsy at that time was not more than two weeks old, still unable to forage for herself. The solution was obviously a formula—from canned milk. But Patsy had other ideas; canned milk found no favor with her. What was Gus to do? He was determined to save Patsy at all costs.

At that time Gus maintained a full dog team. Two of the females—Lady and Puffy—had litters when Patsy arrived. Should he introduce Patsy to the only other source of nourishment available in camp? Gus gave this idea careful thought. It seemed unlikely; but there was no alternative. Well, to make a long story short, Patsy survived. She and the two husky foster mothers are still inseparable, and Patsy weighs in now at 1,500 pounds.

Actually, as Gus explains, the husky's responsibilities ended in about two weeks, for moose calves do not suckle beyond the age of three weeks. After that they must fend for themselves—succulent roots, young twigs, and poplar bark. And here is where Gus took over—cutting down young poplars so Patsy could nip off the shoots; peeling older trees to supply his pet with fresh bark. Patsy became quite choosy (Gus admits he spoiled her unnecessarily) to the point where day-old bark was unacceptable; it had to be cut fresh every day. If, by any chance, Gus was late with the supply, Patsy would approach a poplar of the right dimensions and poke at it with her front foot—a sign to Gus that he must cut it down for Patsy's dinner.

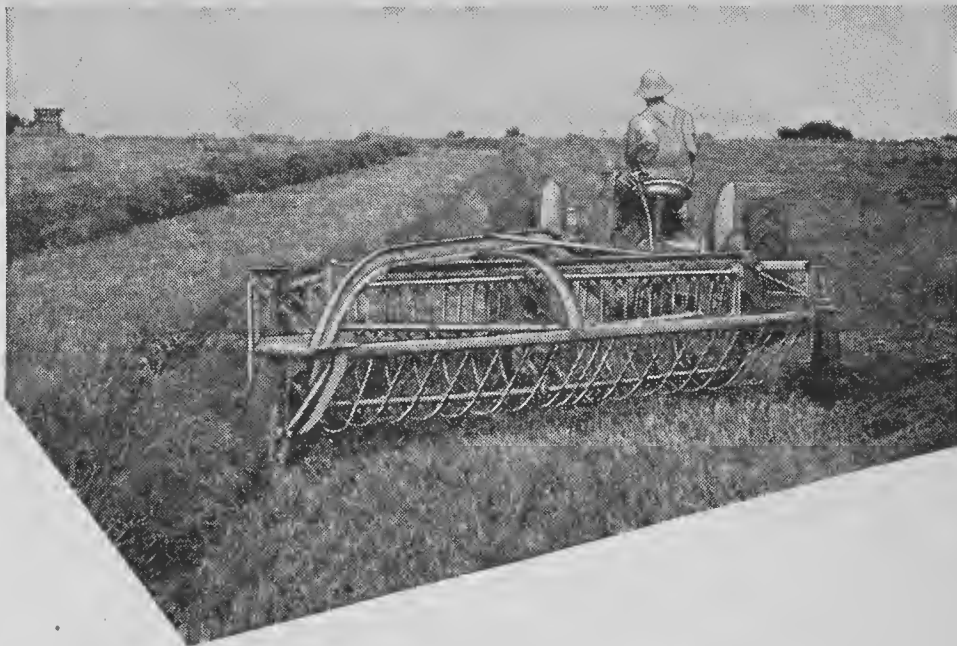
Gus made his big mistake when he introduced Patsy to some of the finer foods, namely, sugar, bread, bannock, rolled oats and feed oats. She fell in love with them immediately, and now insists on them as the main part of her diet. This means that Gus must always have a few sacks of oats around; he buys rolled oats by the 100 pounds; and every time he goes to town he returns with a 100 of sugar. Patsy likes her food carefully prepared. Her favorite is a mixture of oats, sugar and salt, boiled to a palatable softness, and served cool—not hot or cold!

There is another item of diet that Patsy indulges in moderately. It's hard to believe, but Gus has photos to prove it: she must have an occasional feed—of raw fish! She does not overdo the fish habit. She will eat only a couple of fish at a time, and is not always in the mood for them. Gus has a story about the fish-eating habit of one of Patsy's calves; but that must wait until we have introduced Patsy's family.

PATSY was the only tame moose at Gus's camp for two years; until she went afield during mating season. Now there are six huge animals making their home at Gus's camp. Every year Patsy brings home another. There should be six of the offspring, but one of them was destroyed by a timber wolf when just a calf. There are now three fine young bulls, and two young cows.

When Patsy had her first calf Gus thought he had lost her: she stayed away for three weeks before she brought her newborn home. Perhaps she was bashful with her first calf, for she has never stayed away so long since. Now, as soon as the new calf is able to stagger, she hustles it back to the safety of the cabin. It isn't long before they develop the same eating habits as their mother. So every year Gus's responsibilities increase. And with the price of fur what it is, they are fast exceeding what Gus is able to comfortably handle.

It was Betty, one of the calves, who convinced Gus that an occasional raw



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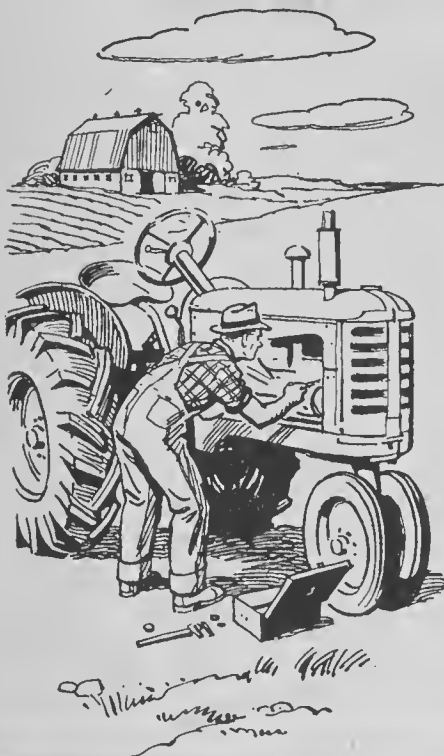
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fish was necessary in a moose's diet. She had left in the spring, and for eight months did not return. Another timber wolf victim, thought Gus. But during a cold day in January she ambled back into camp. The first thing she did was head for the pile of frozen fish that always lies on the lakeshore. She had a substantial meal of same, and then made it known to Gus that she would round off the meal with a large bowl of rolled oats.

It is natural that as a result of Gus's close association with these animals, he should have learned a lot about their habits that is unknown to most people. He has found it quite safe to leave an open bag of oats lying about—a moose will not gorge itself to the point of sickness, as a domesticated animal will. The moose will eat a little, then sleep it off before returning for more. Gus has witnessed the destruction wrought upon the moose by the timber wolves. One of Patsy's offspring, then an animal of two years, weighing 1,000 pounds, was attacked and killed by a timber wolf within sight of the cabin. "It happened so fast," Gus said, "that we could do nothing to stop it."

Gus has observed the swimming technique of the moose at close quarters. Contrary to popular opinion, Gus claims that the moose is a very inadequate swimmer. Unlike the caribou, a strong swimmer that can batter its way through ice-covered waters, the moose swims with its front legs only, dragging its hind legs. While he is a good distance swimmer, this

method of swimming makes him defenseless when attacked in the water, and he is unable to break the ice with his front legs as the caribou does.

Gus's problems will increase with accelerated speed, when Patsy's daughters start bringing home their calves. This will probably start this year, when Patsy's oldest daughter is expected to calve. It will not be long before the care of these animals will exceed his resources. So far, he has received no help, except the odd sack of rolled oats from interested visitors.

Gus's dream today is to see the area of his trapline developed into a game preserve or sanctuary. He is thinking first, of course, of the future care of Patsy and her offspring. These animals have been conditioned to a way of life that must be perpetuated, or they will die. But more than this: Gus says there is no more valuable tourist attraction than a collection of tamed wild animals. He sees such an area maintaining many species of wild life, protected and attended by man; an area in which they can be scientifically studied.

But who is going to take on Gus's responsibilities when he is no longer able to carry them?

The Game Branch of the Manitoba government is, of course, aware of Gus's "moose pasture." It presents a real problem to them; eventually they must step into the picture, either for, or against. One thought is that Gus and his pets might be moved out near the highway, and a regular game sanctuary established, with Gus's moose as the nucleus.

Apples Give Way To Diversification

Dairy and beef cattle together with apples, potatoes and grass and fertilizer, are the basis of this farm business

DURRELL D. SUTTON of Starr's Point in the Annapolis Valley of Nova Scotia hasn't given up on apples yet. True, 1939 saw the end of the good apple business. Mr. Sutton, ex-M.L.A. for King's county in the provincial legislature, had 160 acres of apples then. Now he has his orchard pared down to about 65 acres, 20 of which are young orchards of new varieties. Like many Nova Scotia farmers, however, he has diversified, and is not dependent on apples as a single crop.

His farm includes 150 acres of rich dikeland, the kind that is being reclaimed at a rapid rate these days by the Maritime Marshland Reclamation Administration. It provides hay and late-season grazing. He milks 20 to 25 cows, and most of their production goes to the Wolfville fluid milk market. He has an equal number of beef cows, and finishes steers off grass as two-year-olds. His limited grain supplies are fed only to the calves during their first winter. Grass-fattening of steers keeps down his costs, and makes full use of the rich dikeland forage growth.

Like many Maritime growers, his other important crop is potatoes. He grows 32 acres of them, all foundation or certified seed. He has shipped seed as far distant as the West Indies. His land is rich enough that by Maritime standards, he considers his fer-

tilizer application for the spuds modest—only 1,500 pounds of 3-15-6 per acre. He manures the land, too, of course, and it is here that his cattle contribute additionally to net returns.

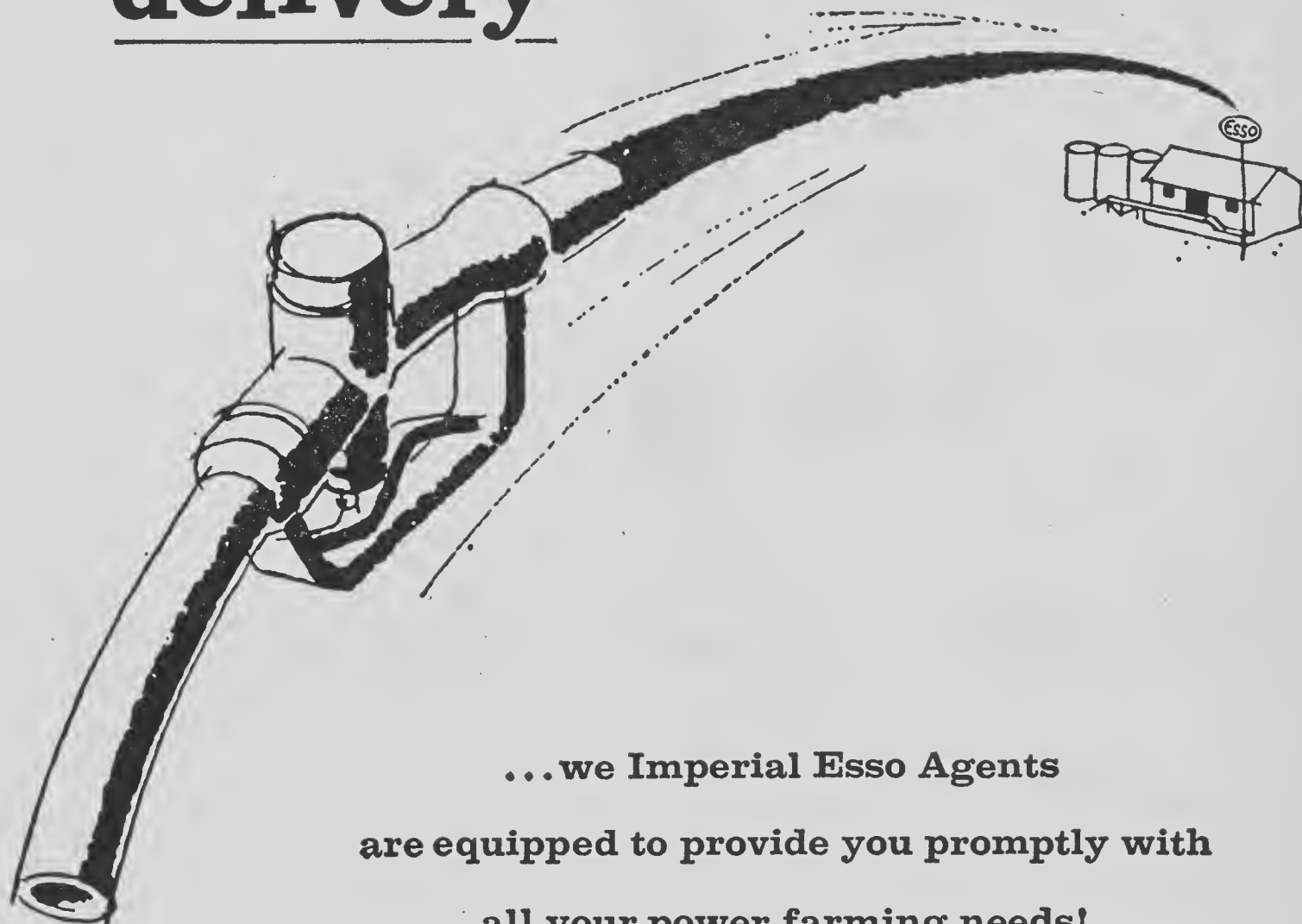
That way, Mr. Sutton and his son Dave are finding that farming in the famous apple valley, which suffered so badly when the apple market almost disappeared, is fast coming back on an even keel, and is retaining its position as one of the finest farm areas in the Maritimes.



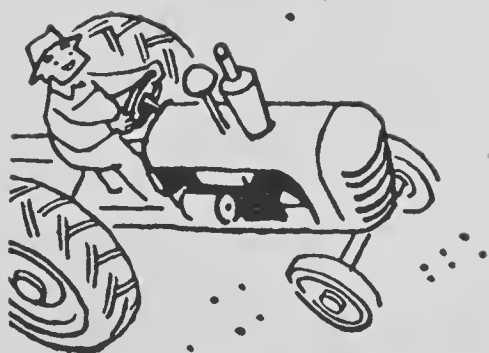
Durrell Sutton has cut apple acreage from 160 to 65, with diversification.

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IS that dairy bull you are using, as good as you think? Now that one bull may sire thousands of calves a year, by artificial breeding, this question becomes more important than ever.

Now, scientists at the Experimental Farms are wondering if they can't come up with a method of measuring a bull's ability to sire high-producing daughters, and thus provide breeders—especially A.I. units—with a way of assuring themselves that they are using the very best bulls available.

Dr. C. G. Hickman, Central Experimental Farm, Ottawa, who is directing the work, points out that he is selecting bulls for use just as any breeder or A.I. unit does, by picking those with good pedigrees.

Each year a group of young bulls, raised from the best cows in the herds, and sired by their best bulls, are mated, using frozen semen, to a group of virgin and first-lactation heifers.

Between the two groups, males and females, matings are at random, to assure a fair comparison.

The bulls are "pensioned off" after these matings, until the heifer calves come into production. No outside animals will be brought into the herd during the 10 or 11 years the project will run. All heifers that freshen are kept for two complete lactations; so that no bull can have his failures hidden as in most herds, where poor heifers are shipped to market.

The daughter heifers, as well as being compared for milk production, will be individually fed, also, so that economy of milk production, and rate of growth can be measured. Thus, the daughters of one bull can be compared with those of another, giving an accurate measure of the bull's value as a sire. This step completed, the best bulls will then be brought back into service and mated with the second-lactation and older cows.

This program will be carried on for about 11 years, by which time Dr. Hickman hopes to be able to tell how much faster and further we can go in improving our dairy herds. V

Gear Pump For Shallow Wells

Faster and easier to install than the pump jack if the water is not too far from the top of the well

by E. McKINSTRY

A GEAR pump is much easier to install in a well if the water level is 6' to 12' from the top, rather than using the old up and down pump and pump jack, and it will pump about four times faster.

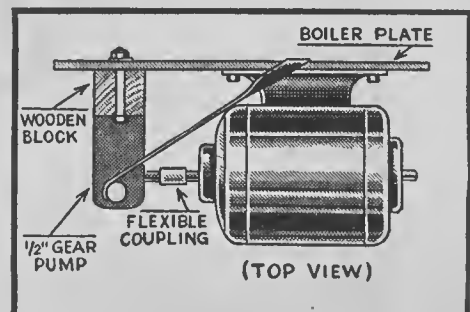
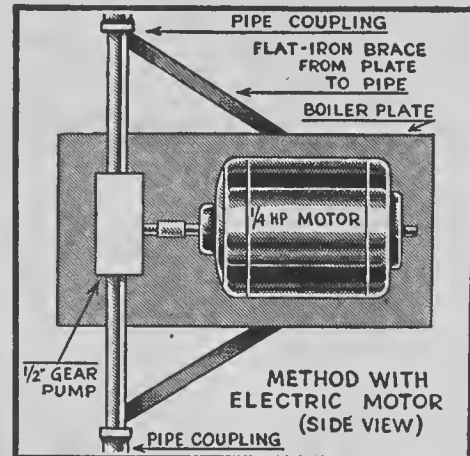
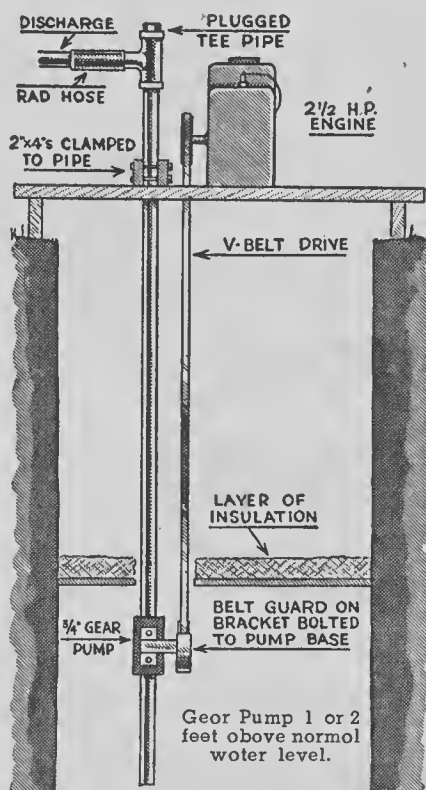
Use a bronze gear pump with ¾" pipe thread intake and outlet ports. Mount it about one or two feet above the normal high-water level in the well.

A 2½ h.p. (or larger) air-cooled engine is mounted on the well cover, and a long V-belt to drive the pump. The engine and pump pulleys should be the same size. A guard, made of 1½" x ½" band iron is mounted on a bracket bolted to the holes in the base of the pump to keep the belt from coming off the pulley. The whole pump

and pipes can be lifted an inch or so, and the belt slipped off, for starting in winter. A platform covered with insulation, just above the pump, will help to keep it from freezing in cold weather. If it does freeze, pour hot water in through the plug on top of the pipe.

When the pump becomes worn, it will be necessary to prime it to start if the water level drops more than two or three feet.

If electricity is available, use a ½" pipe-thread gear pump, driven by a ¼ h.p. motor through a flexible coupling. With a larger motor or a short V-belt, and suitable pulleys to reduce the pump speed and increase the pressure, this could be used in wells up to 50 feet or so in depth. V



Gear pump is mounted one or two feet above normal high-water level. But it may need priming when it becomes worn, if the water level has dropped.

Day of Accomplishment

Continued from page 16

"Dad," young Tommy asked from the doorway, "could I have the car this evening? Biff phoned, and . . ."

"No," John Dodge said shortly.

The Old Man turned so that he could see Tommy's face. At sixteen, he was a tall, gangling, heavy-footed boy, a junior in high school. A slow flush came into his fair cheeks, and he shoved his hands in a baffled, angry gesture deep into the pockets of his tan slacks.

"Why not?" he asked.

John Dodge frowned and fumbled for his pipe. He was not quite sure in his own mind why he did not let Tommy have the car. Certainly, the boy was reliable and drove well enough, but he was the baby of the family.

Still frowning, he held a match to his pipe. "You wait another year," he said. "Then, maybe, you can have a car of your own."

"I'd be careful," the boy said.

John shook his head and went into the house to change clothes. The Old Man turned back to face the warm sunshine. The trouble between father and son worried him.

He thought back through the years to his own son, Mark, who had been dead so long that his memory was little more than a vague shadow in an old man's mind. Frowning, puffing at his pipe, he tried to think why this

trouble over the car always made him think of Mark. But as always, the answer evaded him, and suddenly the whole thing was forgotten as Preston Ball's sleek convertible came up the drive from the highway. A handsome, well-dressed man in his early twenties, Preston leaped to the ground. "Hello, beautiful!" he called to Johanna.

Preston had always had too much of his father's money to spend. He had had too much of everything. He stood beside Johanna, looking at her in a way the Old Man did not like; and Johanna lifted her bright head and smiled up at him and let him touch her bare arms with his soft, white fingers.

John, Emma and Tommy came out of the house, carrying baskets of food; and Johanna called, "I'm going on with Preston."

The Old Man saw Emma's eyes narrow a trifle and a frown came to John's face, but neither spoke against Johanna's going with Preston. After all, the girl was twenty. She was teaching school in town and earning her own money. Her life was hers now to build up or tear down, and they all knew it.

"Hi, Preston!" Tommy said, eyes fixed longingly on the car.

"Hi, fullback," Preston returned. "You going to win the game against Central High next week?"

"Sure," Tommy said. Then, enviously, as Preston swung the convertible around and drove into the highway, "The lucky stiff!"

John Dodge's frown deepened.

"Pa," Emma said, "don't go wandering off someplace."

"Don't worry about me," the Old Man said, knowing that Emma was remembering how a time or two, he had wandered away from the place and had become hopelessly lost.

Strange that a man would lose his way in a place where he'd lived almost seventy years, but when you're crowding ninety, you sometimes become confused. You find things changed from the way you remember them.

"Let's go!" John said shortly.

A moment later, the Old Man was alone. His eyes turned again to the bright trees that marked the course of the winding river. It had been months, perhaps years—time was an elusive thing to him anyway—since he had visited the old home which he and Ann had carved out of a wilderness of trees and brush. And there was the old church! And the cemetery! Feeling an inner excitement, he hobbled into the house.

IT was a fine big house which he and John Dodge had built together twenty years ago. Sometime, the Old Man wasn't exactly sure when, John and Emma had installed electricity, bottled gas and running water. He paused a moment to turn on and off the front-room lights. A marvelous thing, electricity, and he seldom passed a light switch without flicking it on and off.

He went into the back bedroom, which was his own, and stood looking about at the old furniture which he and Ann had bought many years ago. Then his gaze turned to Ann's picture hung between the two north windows.

The picture was old and faded, but Ann's smile was still warm and sweet. Looking at it he thought of Johanna, who was so much like Ann. Sometimes, in his mind, Johanna was Ann, and Ann was Johanna; and at this moment, it seemed that Ann was among the living, warm and laughing and lovely and bright-eyed. He felt his excitement grow, and the years since Ann's death no longer existed for him.

Turning to the mirror, it occurred to him that he was not dressed suitably for a man who was about to call upon the woman he loved. He slipped out of his faded overalls and blue shirt, went over to the closet and dug out an old black suit. It had been

Has any reader ever found perfect accuracy in the newspaper account of any event of which he himself has inside knowledge? — Edward Verrall Lucas.

a long time since he had worn his best suit. Not since Lige Berry's funeral, which had taken place sometime in the dim past. And then he thought how foolish it was to wear the black suit, for Ann was dead, and he would likely see no one, unless he happened to meet Cal Tracy, and it made no difference anymore how he was dressed. But he put on the suit, anyway, and donned a yellowed white shirt that had been stuck away so long that he had difficulty thrusting his hands through the stiff cuffs.

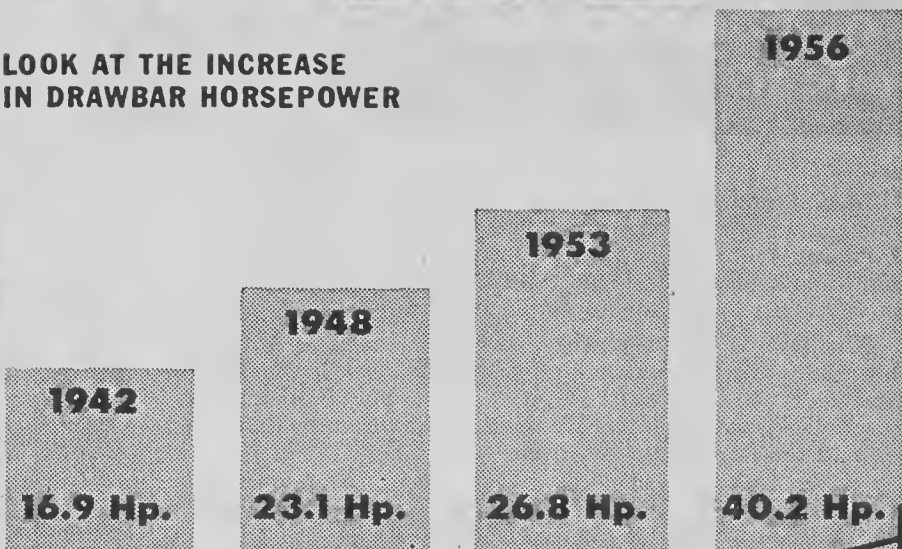
Since he expected to be gone quite awhile, he stuffed a few sandwiches into his coat pockets. He hurried out



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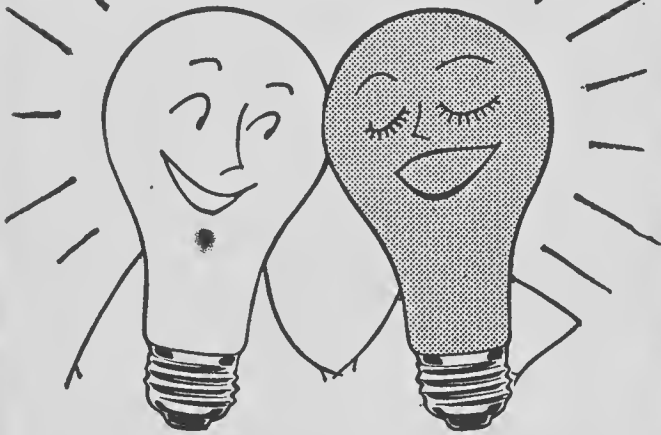
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of the house, carefully stepped down the porch steps—an old man had to be careful about steps—and walked stiffly toward the red barns.

Coming to the hard-packed earth between the cattle barn and the machine shed, he leaned on his stick and gazed at the neat row of tractors and power machinery. Not a horse on the place, he thought, and he wasn't sure he liked this farming without horses. Give a man a few good teams, or some stout oxen, and . . .

The thought escaped him, and he went on to the pasture gate, got it open, went through and closed it carefully. He came to a corner of a field of browning alfalfa and recalled that this was the first land he had cleared and broken. He stopped at a tumble of stones and remembered that here he had dug his first well. Or was it on up the road a ways? And then he came to the old road and stood by the wire fence for a time, resting, staring at the weeds and grass which grew between the ruts. The fence gave him some trouble, but he managed to get through without snagging his clothes. He picked up his hickory stick, straightened his bent back, and hobbled on.

At last, he turned a sharp corner and saw his and Ann's first home, a two-roomed log cabin, now roofless, standing in a weedy clearing among tall trees. He crossed through the dead weeds and sat down on the edge of the broken porch.

For a long time, he sat with his back against the rough log wall, letting the past crowd into his thinking. He and Ann had come here from Ohio in a covered wagon. They had chosen this site for building because of the good straight trees which stood ready to be cut and notched for the walls of the house. He remembered how they had hauled stones from the river bluff for the fireplace. He thought of the wind and the sun in Ann's bright hair, of her laughter and of the courage in her eyes, and of the erect way she had carried her slim shoulders. He suddenly felt very lonely and sad.

AFTER that, perhaps he dozed a little and dreamed, for he could hear Ann's quick steps inside the cabin and could smell the wood smoke from the fireplace, which had never drawn well. Then he heard her calling, "Dinner's ready, Tom," and he felt young and strong. But when he got to his feet, he was old again, and very tired. He stood for a time, leaning on his cane and staring at the doorless doorway and the glassless windows and the cracks between the weathered logs. He smiled and shook his head. It had never been a very comfortable home, but they had been young and had not minded discomfort. He sat back down on the porch, dug the sandwiches from his pockets and ate.

A squirrel hopped across the road, and suddenly he was remembering Mark, his and Ann's first child, and there came to him with startling clearness the thing about Mark which he had been trying to remember. Frowning, he stood up and brushed the dust from his clothes. He must hold onto this memory, he told himself, and not let it escape him again. The first good chance he had, he would tell John

Dodge about the fall when Mark was 14 and had wanted, more than anything else, a gun of his own for hunting squirrels.

Now, so it seemed to the Old Man, he had been here long enough and it was time to move on. He stumbled to the road and followed it on toward the river. Presently he came into the open country where the old church stood against the blue sky. He stopped at the well and pumped himself a drink. Wiping the clinging drops from his white beard, he faced the unpainted, windowless building, remembering; but the memories were confused, and he had no time now to straighten them out. He waded through the tall brown grass into the cemetery beside the church, and after a moment's search, found what he was looking for; a white marble slab which marked Ann's grave.

The Old Man ran his thin fingers over the cool, smooth stone, remembering heartache and tears and deep loss. He glanced down at a smaller stone which marked his son's grave. Mark had died of a strange fever that had swept the countryside. Eight years later, Emma had been born.

There was something else he had intended to do here, and he sat down to think what it was. He was still sitting there when Cal Tracy, driving along the old road in his truck, saw him and stopped.

"Hello, Grandpa," Cal said, shaking him gently.

The Old Man lifted his eyes to the lean, friendly face of the wide-shouldered young man, and his mind came swinging back to the present.

"Didn't suppose I'd see you here, boy!" he said.

But, of course, he had known that Cal would come past the old church on his way to look after the calves. That was the main reason he had come here. True, he had wanted to visit the cemetery before the weather turned bad—but Cal and Johanna . . . Sometimes you could help youngsters like them if you knew the right thing to say.

"What are you doing so far away from home?" Cal asked, smiling with his wide mouth, but frowning about his warm, brown eyes.

"I ain't so far away from home," the Old Man answered, thinking not of the big house, but of the log cabin.

But Cal was thinking of the big house two miles away, and the worry in his eyes deepened. "Where's John and Emma?" he asked.

"Them and Tommy went to the fair in town."



"Wockerhoff believes in close grazing."

"Where's . . ." Cal was about to ask where Johanna was, but checked himself. "Better let me give you a lift home, Grandpa," he said.

Willingly, the Old Man let Cal lead him to the truck and help him up to the seat. Still looking worried, Cal climbed in and started the engine. "How come you're all dressed up, Grandpa?" he asked.

The Old Man braced himself against the jolting of the truck. "Always dress up for a Sunday morning walk," he answered.

Cal considered that a moment in silence. "I suppose all your folks went to the fair?" he murmured, still thinking of Johanna. They were fast approaching the old log cabin, and the Old Man missed the question.

"Ann and I built that house 70 years ago," he said. "Mark was born there. He wanted a gun. You don't remember him, I guess."

"No," Cal said. "He died a long time before I was born."

"That's so!" the Old Man nodded. "He looked a lot like his mother. Fair and blue-eyed. Emma took after me. But Johanna takes after Ann." And then he remembered why he had wanted to see Cal. "Preston Ball," he said, "took Johanna some place in that new fancy car of his. Who's to blame for this trouble between you and her?" the Old Man asked when Cal didn't respond.

Cal looked startled, and then a slow red came into his cheeks. He shrugged his big shoulders and concentrated on the road ahead.

"Both of us, maybe," he said at last. "I said something about if we got married at Christmas time, she could resign from her teaching job. She said, no, she would keep on until spring, that we could use the money, and . . . shucks, Grandpa, it all sounds kind of silly when I try to tell it. I said I didn't need her to make money for me, and she said maybe I didn't need her at all. And, well . . ."

"Every time the phone rings," the Old Man murmured, "she runs to answer it. Guess she thinks it's you calling her."

They were riding smoothly on the concrete highway before Cal spoke. "Guess she could phone me anytime she wanted to," he said.

"She's like her grandmother was," the Old Man said. "A lot of pride in her makeup, boy."

"A man has his pride, too," Cal said.

Suddenly the Old Man was extremely tired. He felt the truck swerve, and opening his eyes, saw that they were approaching the big white house. "Cal," he said worriedly, "I ain't supposed to go out alone."

"Don't worry," Cal grinned, "I won't tell on you."

That was Cal for you. You could always count on him to . . . the Old Man frowned. He had something more to say to Cal, but he wasn't exactly sure how to say it. That was the trouble with being old, you found it hard to talk to the young.

"Boy," he said, "in my day, when a man wanted a woman, he got busy. If I was you, I'd phone Johanna this evening."

"What'd be the use?" Cal muttered. "She'd be out with Preston."

The Old Man thought that over carefully. "No," he said at last. "She'll be sticking close to the phone like she has been every evening, thinking you'll call her."

"If I thought . . ." Cal's voice was suddenly husky.

"Try it and see," the Old Man said.

HE stood in the yard until Cal's truck turned into the highway, and then hobbled up on the porch and into the front room. He switched the lights on and off and marveled at the wonder of electricity. He went into

the kitchen, poured a cup of steaming coffee from the thermos bottle, and helped himself to a slice of cake.

In the back bedroom, he got out of his old suit and hung it carefully in the closet. He took off his yellowed white shirt, folded it neatly and buried it in a dresser drawer where Emma was least likely to discover that it had been worn. He put on his old clothes and then lay down on the bed to rest and to dream of Ann and of the old cabin and of the bright leaves on the trees.

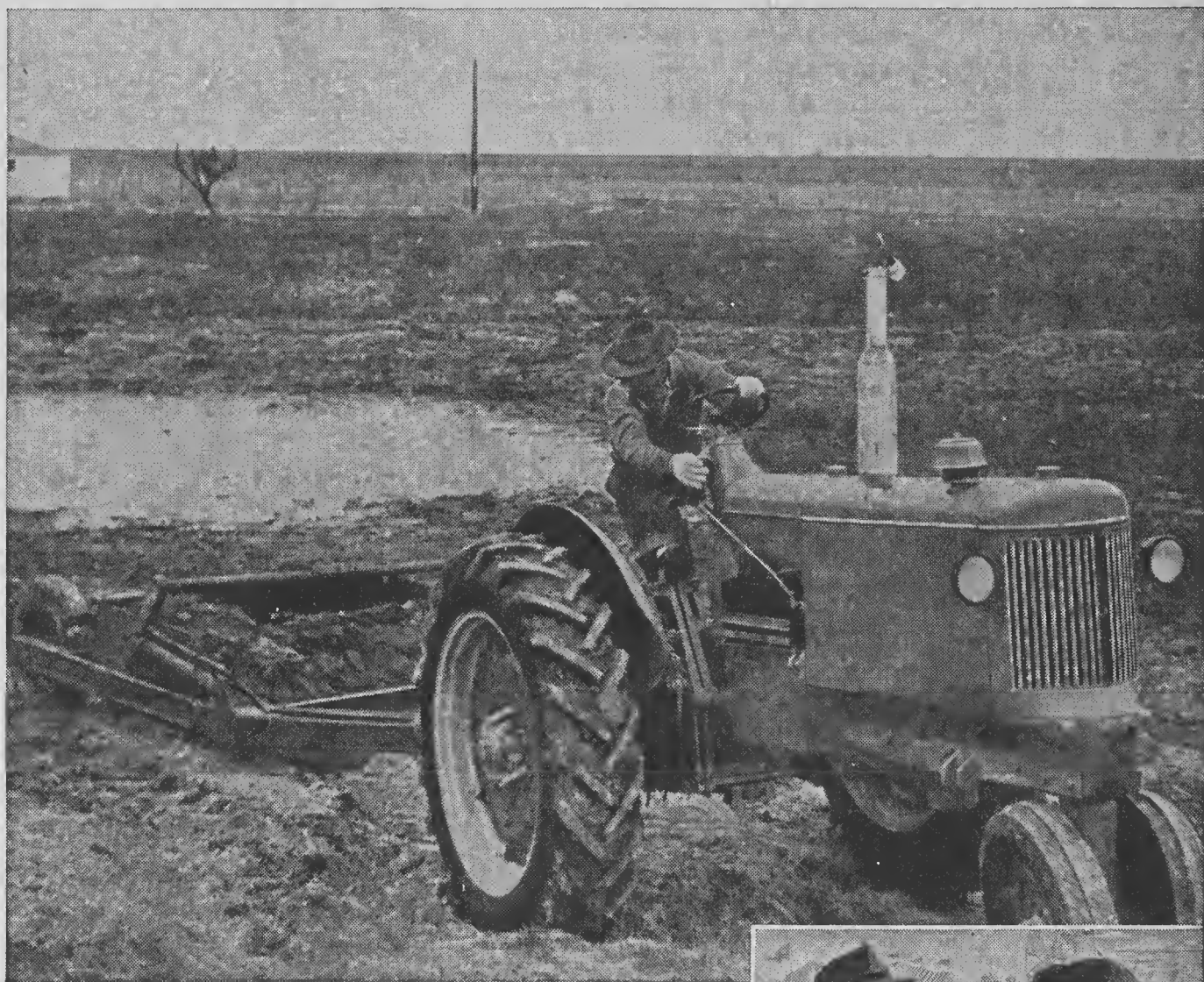
He was dozing when Emma called him to supper. He stepped into the

bathroom to comb his beard and wash his face and then went into the kitchen and took his place at the table.

"He looks tired," John Dodge thought worriedly. "Good thing we didn't take him with us."

"What have you been doing all day, Pa?" Emma asked, but the Old Man pretended to miss her question.

He looked about at his family. John Dodge, busy with his eating. Emma, looking tired and worried and older than she had a right to look. Johanna, toying with her food and sitting on the edge of her chair as if she were about to jump up and run.



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from NEURITIC PAIN and SCIATICA

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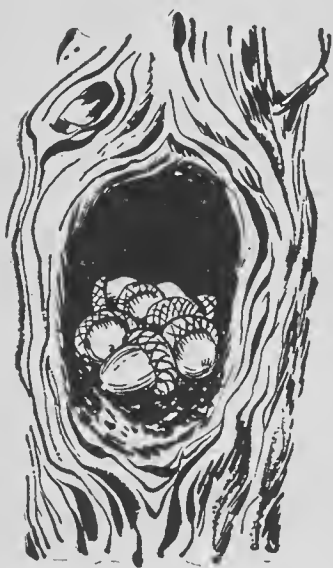


SOME ARE BORN SAVERS

The squirrel does things by instinct. But humans are different. They have to be *taught* just about everything. If you're a farmer, that means teaching your child many things, such as, crop rotation, livestock judging, successful marketing—but, first and foremost, it should mean teaching your child, early in life, to *save*.

Encourage him to open his own Savings Account at the "Royal," and to practice putting aside something on a regular basis. Show him that having something laid away can often make the difference between success and failure. Then (like the squirrel) he'll be prepared for the future.

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THE ROYAL BANK OF CANADA

Young Tommy, a sullen, angry expression in his blue eyes.

"The boy's bad hurt," the Old Man thought unhappily.

Tommy was the first to finish eating. He folded his napkin, muttered, "Excuse me," got up and shuffled out.

The Old Man laid his fork down and frowned as he searched his mind for the story he wanted to tell. He said at last, breaking the heavy silence, "The fall Mark was 14, he wanted a gun." He glanced about. His family was watching him, listening with polite attention, humoring an old man who liked to talk of the past.

"No good reason why I shouldn't have given him a gun," the Old Man went on. "The boy was steady and trustworthy. He'd done a man's work

all summer. But somehow I couldn't make up my mind to give him a gun. Guess I couldn't believe he was man enough for a gun of his own. I said, 'Mark, you wait another year, then maybe I'll give you a gun.'

"The boy died along toward Christmas time that year.

"If I had it to do over again," the Old Man said, "I'd buy Mark the best gun I could afford. Not just so's he could have a gun, but to show him I knew he was man enough to own one."

No one said anything; and the Old Man sighed, thinking, maybe I didn't tell it very well. He said, "Some things oughtn't to be put off, John."

Frowning, John Dodge found his pipe and filled it carefully. But he was a long time in getting around to lighting it. He said, "I know it, Tom. I know, but . . ." He laid the charred matchstick in a saucer.

Emma began to clear the table. "I worried all day about you, Pa," she said, "and I almost . . ."

The telephone rang shrilly, and Johanna leaped to her feet and ran into the hall to answer it.

"Hello," the Old Man heard her say. "Oh, Cal . . ."

"Why," Emma said, her eyes brightening, "that must be Cal Tracy!"

John Dodge smiled and squared his shoulders in a way that told he had suddenly made up his mind about something. He shoved to his feet and strode to the foot of the stairs in that quick-moving way of his.

"Tommy," he called, "you think you could be careful with the car if I let you have it tonight?"

Tommy's answer was a wild, happy hoot, followed by a rush of footsteps down the stairs.

Smiling, the Old Man hobbled into the front room, switched the lights on and off, and then went out on the front porch for a last look at the day. Stooped, gaunt, suddenly lonely, he

He flung himself from the room, flung himself upon his horse and rode madly off in all directions.—Stephen Leacock.

stood in the gathering darkness with his thin hands braced against the railing, this last fine day of autumn forgotten as memories of the past crowded into his mind. He heard quick, light steps approaching and turned to see Ann standing in the doorway, smiling at him, and his loneliness vanished.

She was very young and lovely, with the lights shining through her bright hair; and he thought, "Some-day, Ann, I'll build a fine white house for you on a hill, and we'll move out of this drafty old log cabin." But it was not Ann who spoke to him from the doorway.

"Grandpa," Johanna cried, "guess what? Cal's coming over to see me this evening!"

"Cal?" he said, puzzled, trying to think who Cal was. "Oh," he said, remembering and feeling pleased. "Cal Tracy."

"Of course," she said. "There isn't any other Cal."

And in her happiness, the girl, who was so much like the Ann of his memories, laughed softly and brushed the Old Man's whiskered cheek with her young, warm lips.

Significant ideas gather around the marking of special May days

by AMY J. ROE

THE idea of devoting a certain day each year to the public planting of trees and the actual naming of it as "Arbor Day" was proposed by J. Sterling Morton of Nebraska. He was at the time a member of the state board of agriculture and later became U.S. secretary of agriculture. He was greatly saddened by the sight of the number of treeless farms in his home state and decided that he must try to do something about the problem. It was first observed on April 10, 1872. At the start, efforts to extend its celebration were chiefly made through agricultural associations and town authorities. The idea spread but not rapidly.

Ten years after its founding, the plan for making it a school festival was inaugurated. In 1885 it was declared a legal school holiday in the state. With this new concept, the observance of Arbor Day spread throughout the United States and far beyond its borders. The actual date of its celebration varies in different states but April or early May is the rule in the northern states, while December, January or February are the months for it in southern states.

Its scope and purpose have greatly broadened. From simple exercises and the planting of a single tree or improving public grounds, it has become an occasion for impressing the minds of school children with the importance of planting countless seedlings to reforest waste lands. Through the enlistment of children's interest and support, parents have been brought into the scheme and as a result many individual farmsteads and many communities have benefited.

What others have planted, we today enjoy.

CANADIANS adopted the idea of celebrating Arbor Day as a special school holiday in 1890. Much encouragement was given by departments of agriculture, aided and abetted by school inspectors in the rural areas. In some provinces it was declared a legal holiday.

The prairies had much more need of trees than had Ontario, so it is understandable that prairie children put more zeal into the celebration of the day. For one thing more effort was required, as many had to go a long way to get their trees and sometimes suitable soil had to be hauled to provide tiny seedlings with nourishment to get a fair start to survive winter killing and drought conditions. Truly it may be said that the custom of observing Arbor Day varied widely in different parts of the country and have changed within our own lifetime. Let me sketch for you a picture of how things went at one little country school.

Along with tree-planting went the twin idea of this being a clean-up day for the schoolhouse and yard. Armed with the necessary pails, mops, soap, rags, rakes, spades and the wheelbarrow that Stan wheeled half a mile to and from his home, the pupils were ready and eager to be teamed off for action. The teacher set the girls' teams to clean the blackboards and brushes, wash the desks, to dust down carefully the large maps, wash the windows and the window and door wood-trim. Even the huge boxstove got a going-over—the ashes emptied and the surface given a coat of polish. One team swept the floor and another group finished off with a thorough scrubbing of the wide but not-too-smooth boards. The parents, of course, came along and joined in to help with the more difficult tasks, such as cleaning the smoke-grimed walls and ceiling.

The boys' teams meanwhile were busy in the yard with rakes, hoe and spade. A cheerful bonfire soon disposed of the winter's accumulation of debris. Teacher supervised the spading of the flower beds and seed plots, the boys delighting in the final smoothing-off, in preparation for the

planting of the seeds. Under careful direction a number of the pupils participated in the actual planting of seed, putting in markers for later easy identification of the young shoots.

Then came the cry: "Halt—lunch is ready!" This was a real picnic, as the children shared in the special treats brought from home for the occasion and there was much speculation as to what the well-filled baskets contained. After the picnic lunch was eaten and things cleared away, we all assembled out of doors for the day's important ceremony. Teacher supervised the digging of the holes for the trees. Two boys fetched the pails of water and poured it in. While one pupil held the tree upright, another inserted the well-spread roots into the hollow. Eager hands of the older boys gradually filled in the covering soil, tapping it gently but firmly. Jack and Jim added more water to the surface. And so down the row. When the job was finished, they all wished the new trees "good growing" and sang *The Maple Leaf Forever*. They had enjoyed the work and the fun of doing things together.

In later years, the trustees hired some family in the district to clean the school during the Easter holidays and paid one of the pupils the sum of \$2 monthly to attend the fires, sweep and dust the schoolroom daily. Nowadays a janitor does such a thorough caretaking job that annual clean-up days are not necessary. After the desks are made tidy and the yard raked, the teacher takes her flock on a nature hike to some beauty spot, where trees, flowers and animals may be observed. Or the remainder of the day may be spent in competitive activities.

Perhaps this earlier concept of Arbor Day fulfilled its mission and has passed into the limbo. Countless men and women, who attended little country schoolhouses will remember those days and the fun they had. Countless people today enjoy the day as a holiday and many employ it usefully around home or at a summer camp. How often, I wonder, do we pause to think of how our country and we have benefited from the results of the observance of Arbor Day; the inspiration of that tree-loving enthusiast from Nebraska.—Jennie L. Franklin.

*But he is wise who, 'mid what noise
his winding way may be,
Still keeps a heart that holds a nook
of calm serenity,
And an inviolate virgin soul
that still can love a tree.*

—SAM WALTER FOSS.

THE arrival of May brings us around once again to the realization that the closing of the school term is not far off. There is apt to be now for adults and children alike, a feeling of lassitude and perhaps boredom with confining tasks. For pupils at school, there are still the intervening weeks of study and the final tests and examinations. For some, this may be a critical period in finding satisfaction in their work and in their attitude toward continuing at school for the coming year, especially if it involves going on to high school.

Mary, who has just had a rather upsetting experience in an interview with her teacher, may come home lugging a huge pile of books and announce to her astonished parents, "I'm not going on with school. I don't like it. I'm finished with it, as of today." Or son John in a similar definite manner, say: "I'm through at school, Dad! You need me to help run the tractor, so there's not much sense in me trying to finish out the year."

Such situations require firmness as well as understanding on the part of parents, if children are to be prepared to find and enjoy their place in opportunities and employment, later. Many an individual who has been urged or even ordered to continue at school, has had good cause to rejoice afterward that he did continue at his studies, which gave him high school or university standing.

A study conducted by the Unemployment Insurance Commission, based on an analysis of the live files of applicants for jobs in local employment offices throughout Canada was compiled and made public on November 24, 1955, is summarized in recent issue of *Canadian Welfare*. On that date unplaced applicants totalled 173,621 males and 72,548 females for a total of 246,169. Of the male group, 70.2 per cent had an education equivalent of Grade VIII or less; for the females the percentage was 47.5.

The conclusion, as other breakdowns show, is not that the lack of education is necessarily a cause of unemployment. What appears, rather, is that a worker with inferior education tends to become attached to an occupation in an unstable industry, which has a higher rate of employment, thus making the likelihood of unemployment greater for him than for the worker with superior education. There are situations where a direct connection can be noted between the worker's education and the requirements of the job.

We are living in an era of great technological changes in industry and business. When changes come within a plant or office, resulting in a shifting of job duties or in the creation of new jobs calling for better trained people, poorly educated workers are likely to be laid off. Indications now are that the number and the speed of these changes will increase in the future and that more unemployment of this kind will occur.

While probably 25 out of 100 youngsters who begin school life have the ability to do university work, only seven or eight enter college and not more than five or six graduate. These figures are given in a study by two members of the Ontario College of Education; R. W. B. Jackson and W. G. Flemming. Taking into account that not all college students are gifted to benefit from the courses provided, the investigators conclude that of the 25 able students who could, with profit to themselves and the country, enter upon a university course, only five are likely to complete it. The other 20, as good and in some instances even better, fall by the wayside.

There is today an increasing awareness and concern over certain apparent weaknesses in the functioning of our educational system: teacher shortage, the consequent employment of those not fully qualified to teach, the high proportion of "failures" in high school and universities, the "drop-outs"—or in other words the high annual mortality rate from Grade VII on.

The Monday in May that falls in the week of the 24th is now a statutory holiday. The practice of marking, that was previously known as "Empire Day" now called "Citizenship Day," with suitable ceremonies, is growing in popularity across Canada. These occasions could well be used to bring home to the minds of pupils, parents and the whole community, the importance of education, the privileges and the responsibilities which rest with each one of us in regard to it. We depend upon our schools for the training of our future leaders in many fields; in industry, business, government, law, medicine, social work and the teaching profession. Let's make every effort to see that more of the 25 out of every 100 pupils, capable of going on to and benefiting by university, get there and that fewer of them become school casualties along the way.



Mother after 18 months hospitalization now carries on with family duties.

A LITTLE girl skipped down the street in the bright, hot sunlight, bubbling over with the joy of living. A sore throat had kept her home from school but it seemed to vanish as her excitement grew over beginning dancing lessons.

She stopped before a large building. This was it—the studio of the wonderful teacher who had promised to give her tap lessons. She flung open the doors and ran up the stairs.

Almost at the top, she halted, steadying herself against the railing. What was happening to her face? her body?

The little girl, a moment earlier so carefree, limped into the office of the teacher, eyes wide with alarm. The teacher stared—it was as if the left side of the child's face had dropped. A few minutes later the youngster was speeding home in a cab, a worried mother meeting it at the driveway. When the doctor had made his examination, he said quietly, "Get her to the hospital. I'm afraid it's infantile paralysis."

This happened eight years ago. Today, Canadian boys and girls play into the twilight of long summer and warm autumn days, protected from this crippling disease by three doses of polio vaccine.

The term "miracle" has been applied often to drugs or serums which offered new hope in the fight against

disease, but it may well be that in the eyes of anxious parents the discovery of a polio vaccine is the greatest medical miracle of the age. But is it a guaranteed protection?

Doctors with wide experience in practice or administration in this field warn that it is too early to judge. There are still too many controversial facets to the disease itself:

—why do polio epidemics seem to move in cycles? Charts of Canada's epidemics (1924-53) indicate a very consistent zig-zag pattern with cycles from mostly two, but up to four years.

—does the epidemic move from west to east, from south northward, or does it have any definite travel pattern?

—what makes polio explode in an area that has already felt its force in epidemic form?

What is polio, or infantile paralysis as it used to be called when it was thought to be a children's disease? Poliomyelitis has been defined as an inflammation of the grey matter of the spinal cord, caused by a virus—an infectious agent generally considered filtrable . . . i.e., it can pass through porcelain filters having pores so fine that bacteria cannot pass through. The paralysis is the result of nerve damage.

In 1953 polio virus was "seen" for the first time, and described as one of the smallest disease-producing organisms known to medical science. There are today three known types of polio virus, each capable of causing paralytic poliomyelitis: Brunhilde, Lansing, and Leon. The first type is most common in Canada. Any vaccine against paralytic poliomyelitis would have to protect against all three types of virus.

Poliomyelitis has been puzzling physicians for centuries, the earliest record of it appearing on the murals

Progress in Polio Story

The advent of Salk vaccine treatments has brought new hope of the ultimate prevention of a dreaded disease. Growing public interest and support for positive restorative measures for those afflicted

by RUTH GILL

of ancient Egypt. The first modern clinical description was given in England in 1789. A little over a century later scientists succeeded in transmitting the disease to monkeys, subsequently demonstrating that it was a virus disease.

Over the years research gradually found the lock, or vital knowledge, on polio immunization, but no one seemed to be able to locate a key that would fit it.

In 1938 a giant step was taken in the fight against polio. The late Franklin D. Roosevelt, president of the

ward was taken in Canada. Before a vaccine could be distributed practically, someone would have to develop a method for mass producing a most necessary component, the poliomyelitis viruses. The discovery was made in the Connaught Medical Research Laboratories of University of Toronto. In 1953 they supplied a large quantity of the virus fluids for use in the manufacture of a vaccine evolved by Salk and his associates.

The first large-scale trial of Salk's polio vaccine took place in 1954 and involved thousands of children in the United States, Canada and Finland. It is significant that though the third "shot" for many of them came during



In Winnipeg a special van with hydraulic lift is used to transport polio patients to and fro from hospital or home and the various treatment centers.

United States, himself a victim of polio, permitted his birthday to be named as the celebration day of a "March of Dimes" fund-raising campaign, and thus began the National Foundation for Infantile Paralysis. Monies collected went into education, further scientific research, and began financing proper treatment for thousands of polio patients, regardless of race, creed or ability to pay.

When F.D.R. contracted polio at the age of 39, Jonas Salk was just a child. Neither meant anything to the other, yet as the years progressed what one had begun, the other was destined to help continue. In 1951 Jonas Salk, now a dedicated medical scientist, received a grant from the National Foundation to conduct further polio vaccine research at the University of Pittsburgh. In recent years science had come close to shaping the key that was to fit the polio immunization lock. Salk and his associates were sure they could apply the remaining required notches.

As they pored over test tubes and microscopes, another great step for-

the summer holidays, the children were brought home from lake or summer camps to receive the injection. They were brought to the doctor's office by their parents even though it was known the child was one of the 50 per cent who would receive not the vaccine, but a "control shot."

WHEN the field trials were pronounced satisfactory, Canada's department of Health and Public Welfare finalized a plan to immunize the children of the nation. First to receive the three doses of Salk vaccine were those who had taken part in the preliminary tests. Special provision was also made for inoculation of Indian and Eskimo children and for dependents of Canadians serving abroad. Distribution in the provinces varied; Manitoba, for example, inoculated school children up to Grade VIII, plus the five-year-olds, and expectant mothers.

From the beginning Canadians regarded the polio vaccinations program as something of a national emergency. So impressed with this attitude



Small polio patients delight in and benefit from exercising in a heated swimming pool, under the watchful supervision of volunteer Red Cross workers.

and the strategic planning was Hart E. Van Riper, Medical Director of the National Foundation for Infantile Paralysis, that he told the 1955 annual meeting of the Canadian Public Health Association: "Nowhere in the world has greater progress toward control of paralytic poliomyelitis through vaccination been made than in Canada."

At the end of 1956 nowhere in Canada had a case of poliomyelitis occurred where three doses of vaccine had been given.

BY March of 1957 it was estimated nearly three million Canadian children had received the polio vaccinations. The vaccine supply is now sufficient to allow adults to obtain three doses, if desired, from their family doctor. Now too, there is talk of exporting the polio vaccine. Canada could well become a leader in this market for no trouble has been experienced in this country with faulty vaccine, a result due in great part to the government's insistence on and the manufacturer's adherence to high standards and thorough safety-testing procedures.

Perhaps nowhere in Canada is a check on poliomyelitis welcomed more than in the province of Manitoba where epidemics in the past have seemed to strike oftener and with greater intensity. In 1953 Manitoba recorded the highest rate of polio incidence experienced in Canada and the United States. Aid in the form of "iron lung" respirators and other hospital equipment was flown in from other parts of the continent.

After the widespread Salk vaccine inoculations, the 1956 incidence of polio in Manitoba was the lowest in six years, with only 21 cases reported and no fatalities. There were two deaths from polio during the year, but both were 1953 cases. Three of the 21 Manitoba cases had received only two doses of vaccine. Two of these patients completely recovered and the third, which showed moderate paralysis, has only some weakness.

Dr. R. M. Creighton, Director of Preventive Medicine for the province, reported at the end of 1956 that "tests show Salk vaccine to give 60 per cent protection against Type 1 polio virus (the cause of almost all polio in Manitoba) and 80 to 90 per cent protection against Types 2 and 3."

(Please turn to page 64)



Exercise under physiotherapist's direction helps child's muscles regain tone.

You succeed every time... with **Robin Hood** ALL-PURPOSE FLOUR!



Robin Hood CHELSEA BUNS

4 cups Robin Hood Vitamin Enriched Flour, sifted
1 package fast-rising dry yeast
1 1/4 cups warm water
1/4 cup sugar
1 teaspoon salt
1 egg, beaten
2 tablespoons soft shortening
1/2 cup melted butter
2 cups brown sugar

2/3 cup chopped nuts
1 teaspoon cinnamon
2/3 cup raisins
10 maraschino cherries, sliced

A ROBIN HOOD
BAKE-TESTED
RECIPE

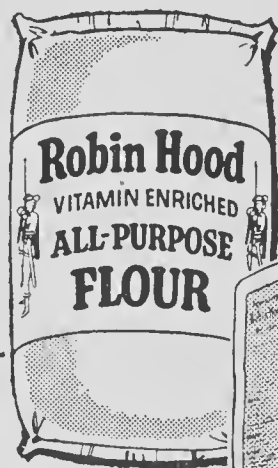
Soften yeast in 1/2 cup warm water with 1 teaspoon sugar for 10 minutes.

To remaining water add sugar, salt, shortening and beaten egg. Add yeast. Stir in flour to make a soft dough. Remember — there's no guessing when you use Robin Hood Flour... it's "Bake-Tested" to give you *uniformly* best results, bag after bag. Knead on greased board until smooth. Place in greased bowl. Cover. Let rise in warm place until double in bulk. Punch down. Cut in two. Cover and let rest 15 minutes.

Grease two 8 x 8" pans. Combine 1/2 cup melted butter, 1 cup sugar and nuts and spread on pans. Dot with cherry slices. Roll dough into two rectangles 3/8" thick. Brush with butter. Sprinkle with remaining sugar, cinnamon and raisins. Roll up like jelly roll. Slice 1" thick and place in pans. Let rise to double in bulk.

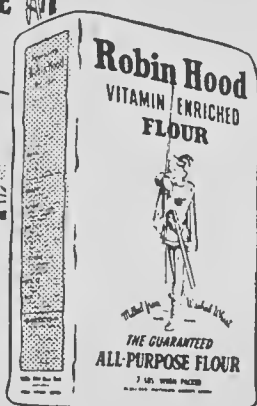
Bake at 375°F., moderate, for 30 — 40 minutes. Turn upside down on plate, and remove pan after 10 minutes.

Each batter makes one dozen luscious Chelsea Buns — the best you've ever tasted or your money back — plus 10 percent!



100 LB.
BANDED BAG:

fine quality cotton — paper label soaks off. No ink to wash out. Robin Hood Flour also in 50 lb., 25 lb., 10 lb., 7 lb., 5 lb., and 2 lb. sizes.



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Robin Hood Flour

THE ONE FLOUR BEST FOR ALL YOUR BAKING



The Little Hunter

Even over the remoteness of passing years, that spring day on the prairies seems to have had something special about it

by RALPH HEDLIN

THE years have slipped quickly away since I had my first successful hunt. Yet that day is still clear in my mind. The long parade of years, each pressing on the heels of its predecessor, haven't clouded my memory of it.

Perhaps it was only a typical early spring day on the prairies. But even over the remoteness of the years, it doesn't seem to me to have been an ordinary day. The snow was gone, except for dirt-blackened watery remnants of drifts under the thickest willow clumps. The grass on the hills and ridges was turning green. The hillsides were blanketed with a profusion of mauve petalled crocuses. The brisk wind, with the moist softness of the early spring, was hustling the swelling tree buds into early leaf—the wind that a few short weeks before had rattled the bare branches and bounced icy flakes of rocketing snow off the frost-bound buds.

I found the days tedious in spite of colts in the barnyard, calves playing on wobbly legs and butting one another in mock battle in the corrals, and early meadowlarks trilling to the strengthening sun. Even at five I was sensitive to the restlessness of spring, and the days, growing longer, dragged endlessly. The brother next older to me had started to school the fall before.

And that was not all. I was concerned about my father. I regarded my father as someone big and important. My older brothers worked with him and he talked to them, but he never saw me. Days would go by and he would never notice me nor speak to me at all. Father worked, and that was all. To him, I thought, little boys were just in the way until they got bigger.

I clumped up the stone steps of the house and into the kitchen. Mother kneading bread, smiled as I came in.

"What time is it?" I asked.

Mother glanced at the alarm clock on top of the warming cupboard on the stove where father always put it when he got up at five o'clock. I guess he went to shake the stove to start it for breakfast and just naturally set the clock there. Anyway, that's where it stood.

"It's just after two," replied mother.

The boys got back from school at a quarter past four generally. It was three miles and the team and buggy were slow. School quit at half past three. It was a lonely time of day.

"What'll I do?" I asked.

"I'll read to you if you like."

"No. I guess not."

Mother tried again. "Would you like to gather the eggs?"

"No, I guess I won't. That blamed old turkey gobbler chases me."

"Oh yes!" Mother had forgotten.

"Why don't you go out to the field. Maybe Father would let you ride on the seeder box."

"Do you think he would?" I asked eagerly.

Mother smiled warmly. "Of course he would."

This was not a bad kind of an idea. "I guess I'll go out there," I said, and clumped out again.

I skirted the barnyard with its horrible old gobbler, crossed the creek on the old stone bridge, tramped through a corner of the pasture and out to the field, and sat by the pasture fence to wait for Father.

The creaking of the seeder and the squeaking of the horses' harness announced the arrival of the outfit. Father jumped off the board he rode on at the back, worked the long levers to lift the drill, swung the four horses around and stopped and looked at me.

"Can I ride with you?" I asked hopefully.

He picked me up and set me on the drill box. "You can ride on the box." A big, strong, even tempered, God-fearing Swede farmer—we all thought Father was something special. But the dust got in my eyes and mouth and I was soon tired. And Father didn't talk to me at all. Maybe he didn't like me riding on the seeder. He stood behind the landwheel and looked out to see that the seeding was straight. "You have to seed straight or it shows crooked in the growing crop and in the stubble too. Bad seeding stands against you a long time," I heard him once tell my oldest brother.



"I guess I'll go home again," I suggested at the end of three rounds. "What time is it?"

Father pulled his big watch out of his pocket. "A quarter after three." An hour yet.

A GOPHER stood bolt upright by his hole beyond the fence and whistled his curiosity. "Why don't you snare that fellow?" asked Father.

"I don't know how. I haven't a snare."

Father tied the lines, climbed over the fence into the pasture and, rummaging in his pockets, pulled out a roll of binder twine. He tied a lasso knot in one end, cut off a seven or eight-foot length and slipped the end of the twine through the lasso knot loop. He fitted the loop into the mouth of the gopher hole and put the end of the string into my hand. "Now you just lie down here and when he pushes his head up pull hard on the string. Swing the snare around your head and bang him on the ground." Then Father climbed back over the fence and went on with his seeding.

I glued my eyes on the hole. Every time the wind whipped a clump of grass near the hole I jumped at the movement. But the gopher didn't show. I was only a year past having my regular

afternoon nap. Spring is a sleepy time for small hunters. The wind ruffled my hair in a soothing manner. The gopher hole blurred; with wearied effort I focussed again, then finally gave way to sleep.

I have no idea how long I slept. I had no way of telling, and anyway time in minutes and hours meant little to me. But I know what woke me. Through my sleep I heard a sharp whistle. I half awoke but didn't move. Was it the cry of a Swainson's hawk, floating majestically in the deep blue of the prairie sky, shouting his joy at the return of spring, and satisfaction over the nest with its rust-mottled eggs in the top of a willow bush? Was it sandhill cranes, flocks wide spaced over the heavens, calling joyfully to one another over their return? I was sleepy and the warm sun, spring wind and soft grass lulled me comfortably. Everything seemed far away and had no particular meaning for me.

WHEN the sharp whistle was repeated I knew it was close at hand. I raised my head slowly and found myself looking into the black, beady, curious eye of the gopher. He stood with his front feet braced wide on the near edge of the hole, his hind quarters in the hole. As I lay and looked at him he bounced stiff-legged on his front legs and uttered another piercing whistle.

My arm, holding the string, jerked back in a quick yank. The gopher caught around the hips, was whipped out of the hole with the violence of the pull and smacked on the ground beside me.

It was a great mixture of gopher, snare and small boy. The snare had all gone wrong. It should have caught the gopher against the back of the hole. I could have held the snare taut and yanked him out in the start of a tight, high arc that would have ended with stunning force on the ground.

But here was the gopher all around me! I frantically tried to take up slack in the string while the gopher spun in equally frantic circles and showed promise of shaking off the snare. I got a shorter grip, started the swing that would dash him with shattering force on the ground. It went wrong. The snare was not tight, and the gopher was streamlined at the rear. The snare slipped off and the gopher started on a great (Please turn to page 70)



Illustrated by Annora Brown

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 plus one
\$1000.00
WARDROBE



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over \$10,000 in prizes
 1,012 chances to win

1st PRIZE A week in Paris for you and a companion of your choice plus one \$1,000.00 wardrobe.

You fly to Paris return in the unparalleled luxury of TCA's First Class Deluxe Service. Spend a glorious week in the romantic fashion capital of the world with \$250.00 'pocket money' each to spend as you please. You choose your own wardrobe with the help of a leading fashion consultant — you take your trip when you please!

2nd PRIZE a \$500.00 Ensemble.

10 3rd PRIZES Ladies' Suits — value, \$100.00 each, or \$100.00 gift certificate.

1,000 4th PRIZES Purse-size Chanel No. 5 Perfume — value, \$5.00 each.



Easy To Enter! Just use this simple form!

OFFICIAL CONTEST RULES—

Read Carefully

1. Print your name and address clearly on the entry blank, ticking off the 5 dishes you believe can be prepared with Quick Robin Hood Oats.
2. Mail the completed entry blank to: The Quick Robin Hood Oats Contest, Box 1554, Toronto, Ont. All entries must have sufficient postage to qualify and must be postmarked not later than midnight, Tuesday, April 30th, 1957.
3. Send in as many entries as you wish, but remember to enclose with each entry a box-top from any size package of Quick Robin Hood Oats, or a reasonable facsimile thereof.

4. An independent organization, the Canadian Bureau of Contest Judging, will select the winning entries. The first correct answers drawn will win. Only one prize will be awarded to any one contestant. All decisions are final and no correspondence will be entered into with any contestant.
5. The contest is not open to employees, or their families, of Robin Hood Flour Mills Limited, or any other persons or concerns directly connected with the contest, their affiliated companies or their advertising agencies.
6. Prize-winners will be notified by mail. A complete list of prize-winners will be mailed to you upon request.

*Don't forget to include,
with each entry, a box-top
from this package*



**ENTER NOW!
ENTER OFTEN!**

Additional
entry blanks
at your grocer's.

Quick Robin Hood Oats Contest,
Box 1554,
Toronto.

The 5 dishes which I think can be prepared with Quick Robin Hood Oats are ticked off below.

- | | |
|---|---|
| <input type="checkbox"/> date squares | <input type="checkbox"/> corn stallop |
| <input type="checkbox"/> strawberry jam | <input type="checkbox"/> breakfast cereal |
| <input type="checkbox"/> pancakes | <input type="checkbox"/> meat loaf |

NAME
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 CITY OR TOWN PROV.

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Wipes clean with a damp cloth—or you can even scrub it! CILUX is tested for gloss retention through years of normal washing.



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CILUX Enamel's great durability makes it ideal for playrooms and recreation rooms as well as kitchens and bathrooms.

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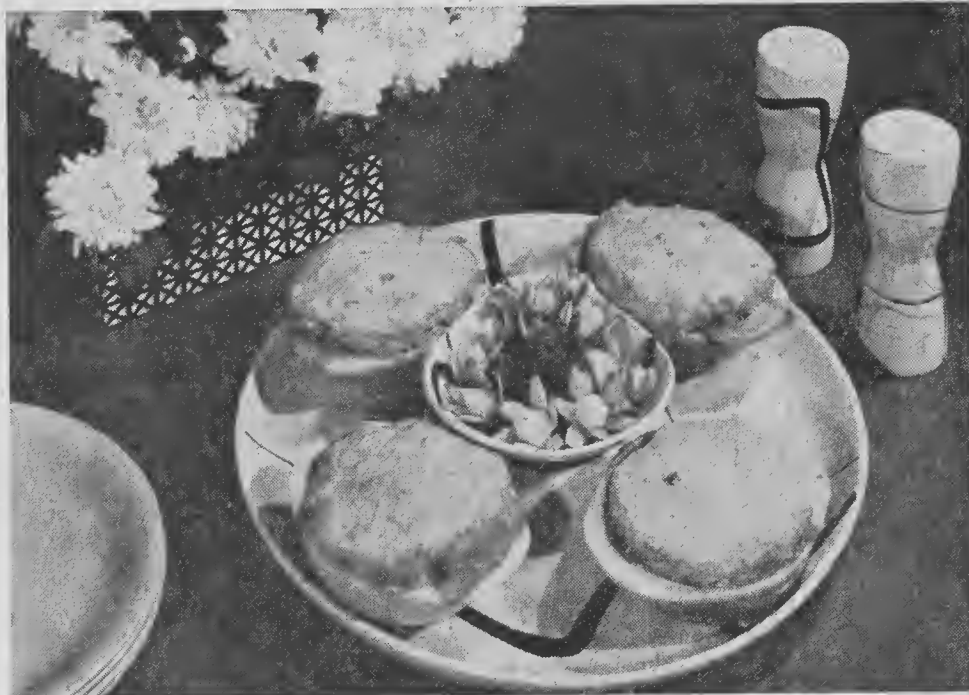


Use CILUX
SUPER WHITE,
too—the
Whitest of
White Enamels.

C-I-L PAINTS

Left-Over Specials

Economical and tasty ways to use extra portions of food



Left-over meat becomes a favorite dish when served in individual pot pies.

FINDING appetizing ways to use left-over meat and poultry is a problem in most households. The old stand-bys of sliced cold roast, hot beef sandwiches with gravy and Shepherd's pie are nourishing but not always tempting. Adding seasonings, vegetables, a sauce or gravy and perhaps a different topping gives left-overs a new look and extra taste appeal.

Using left-over portions helps to keep food costs down. Cool food quickly, wrap in aluminum foil or heavy waxed paper and store in the refrigerator. Cooked food should not be kept too long; it is best used within two or three days.

Spicy seasonings give a tang to left-over meats. Chopped onion, pimento, lemon, curry powder, chili sauce, tomato paste, horseradish, paprika, mustard or a meat sauce are all excellent for this purpose. And do try some of the herbs—thyme, marjoram or sage.

Meats that are somewhat dry may require a little liquid. Extra gravy, cream of chicken, mushroom or tomato soups give the necessary liquid and a special flavor as well. Beef and chicken broth are convenient and tasty. For a change, try horseradish, tartar or a barbecue sauce.

A biscuit, bread crumb or pastry topping on meat pie or creamed potatoes or fluffy rice on poultry and meat dishes will extend left-overs into full-sized meals. The family will love a casserole sprinkled liberally with grated nippy cheese, too.

Tamale Pie

- | | |
|---------------------|--------------------|
| ½ c. corn meal | 1 sweet pepper, |
| 2 c. boiling salted | chopped, OR |
| water | 1 pimento, |
| 1 c. tomato sauce | chopped |
| 1 c. chopped, | ⅓ c. grated cheese |
| cooked meat | 2 T. chopped |
| 1 small onion, | olives |
| chopped | Salt |

Sprinkle corn meal into boiling salted water and boil 10 minutes. Add remaining ingredients, except cheese, to tomato sauce. Line a buttered baking dish with cooked corn meal; fill with sauce mixture. Sprinkle cheese over the top; bake in moderate oven (375° F.) for 20 minutes or until cheese has melted and browned slightly. Serves 4 to 6.

Meat Pie

Cut cold cooked meat in cubes; prepare an equal quantity of diced vegetables (potatoes, onions, carrots, turnips, peas, etc.). Cook vegetables for 10 minutes; drain and use liquid to dissolve 1 or 2 bouillon cubes. Arrange vegetables in layers in a casserole; place a layer of meat on top; add liquid to fill casserole. Cover top with baking powder biscuit dough which has been rolled ½-inch thick and cut in rounds. Bake in hot oven (450° F.) until biscuits are browned (12 to 15 minutes). Individual pies can be made if desired.

Tomato Curry of Meat

- | | |
|-------------------|-------------------|
| 1 T. fat | 1½ T. lemon juice |
| 1 medium onion, | 1 T. curry |
| sliced | powder |
| 2 c. canned | Cold water |
| tomato | ½ c. milk |
| 1 c. cooked meat, | ½ c. rice, boiled |
| cubed | 3 bananas |

Cook onion in fat in heavy saucepan for five minutes; add tomato, lemon juice and meat. Mix curry powder to a paste with cold water; stir gradually into meat mixture until it tastes hot with curry powder. Simmer for 20 minutes. Add salt if necessary. Stir in ½ c. cold milk just before serving. Heap a border of boiled rice on a platter or chop plate; fill with curried meat. Serve with ripe raw bananas cut in halves crosswise.

Beef Roll

- | | |
|-------------------|--------------------|
| 2 c. ground left- | 2 T. minced onion |
| over beef | Moisten with left- |
| ½ tsp. salt | over gravy |
| ¼ tsp. pepper | |

Biscuit Dough

- | | |
|---------------|-----------------|
| 2 tsp. baking | 1½ c. flour |
| powder | ½ tsp. salt |
| ½ c. milk | 4 T. shortening |

Roll dough in rectangular shape ¼-inch thick. Spread with meat mixture and roll as for jelly roll. Cut in eight pieces. Arrange well apart in greased casserole and cover with left-over gravy or one can mushroom soup. Bake in hot oven (400° F.) for 30 minutes. Makes 8 generous servings. Serve with additional gravy.

Beef Upside-Down Pie

- | | |
|----------------|--------------------|
| 1½ c. flour | ½ tsp. celery salt |
| 3 tsp. baking | ¾ c. milk |
| powder (single | ½ c. sliced onion |
| action) | 1 can tomato soup |
| 1 tsp. salt | 2 c. left-over |
| ½ tsp. paprika | meat, cubed |
| ½ tsp. pepper | 5 T. shortening |

Sift together flour, baking powder, salt, paprika, pepper, celery salt; add 3 T. shortening; mix well together. Add milk,

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comfortable
summer

WITH

SILEX

...in the
kitchen



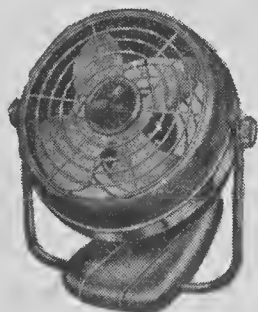
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SILEX

stir until well blended. Melt remaining shortening in frying pan, add onions and cook until soft; add tomato soup, dash salt and cubed meat and bring to a boil. Spread biscuit dough over meat mixture and bake in hot oven (400° F.) for 20 minutes. Turn upside down on hot plate. Serve at once. Makes 8 servings.

Country Chicken Loaf

- | | |
|---------------------------------|-----------------------------|
| 2 c. diced,
cooked chicken | 1 c. bread crumbs |
| ½ c. chopped,
cooked carrots | ½ c. milk |
| 1 c. cooked peas | 2 egg yolks, well
beaten |
| ½ c. chopped
celery | 1 tsp. onion juice |
| 1 T. minced
green pepper | 1 tsp. lemon juice |
| | 1 tsp. salt |
| | Dash pepper |

Put chicken, carrots and peas through food chopper. Add remaining ingredients, in order given. Place in greased loaf pan. Bake in moderate oven (350° F.) until firm, about 40 minutes. Serve with a cream or mushroom sauce. Serves 6.

Chicken Pie

- | | |
|---------------------------------|---------------------------|
| 4 c. cooked
chicken | 2 T. minced
parsley |
| 1 c. finely chop-
ped celery | 2 tsp. salt |
| 1 c. soft bread
crumbs | 4 slightly beaten
eggs |
| | 2 c. chicken broth |

Cut chicken in rather large pieces. Alternate layers of chicken, celery, crumbs, parsley in greased casserole. Add salt, eggs to chicken broth; mix thoroughly; pour over chicken. Bake in pan of hot water in moderate oven (350° F.) about 1 hour or until mixture doesn't adhere to knife. Cover with drop biscuits (as in recipe for Beef Roll). Makes 6 to 8 servings.

Ham Loaf

- | | |
|----------------------------|--------------------------|
| ¾ lb. ground
cooked ham | 1 c. dry bread
crumbs |
| 1½ lbs. ground
pork | 2 beaten eggs |
| ¼ tsp. pepper | 1 c. milk |

Combine meats, crumbs, pepper, eggs, and milk. Mix thoroughly; form in loaf in 8½ x 4½ x 2½-inch loaf pan. Bake in moderate oven (350° F.) 1 hour. Serve with Horseradish Sauce. Makes 6 to 8 servings.

Horseradish Sauce: Fold 3 T. well-drained horseradish into ½ c. heavy cream, whipped. Season with ½ tsp. salt. Makes 1 c.

Ham Timbales

- | | |
|-------------------------------------|--------------------------|
| 1½ c. cooked ham,
finely chopped | ¼ tsp. pepper |
| ¼ c. milk | 1 tsp. minced
parsley |
| ½ c. soft bread
crumbs | 1 T. butter |
| ¼ tsp. salt | 2 egg yolks |
| | 2 egg whites |

Cook crumbs in milk until smooth and thick; add seasonings, butter, ham. Stir in egg yolks. Beat egg whites until stiff. Fold ham mixture into beaten whites. Fill well-buttered molds with mixture; set in a shallow pan; pour hot water into pan nearly to top of molds. Bake in a moderate oven (350° F.) until firm in center or about 30 minutes. Unmold; serve with creamed mushrooms or surround with buttered peas or asparagus.

Meat Souffle

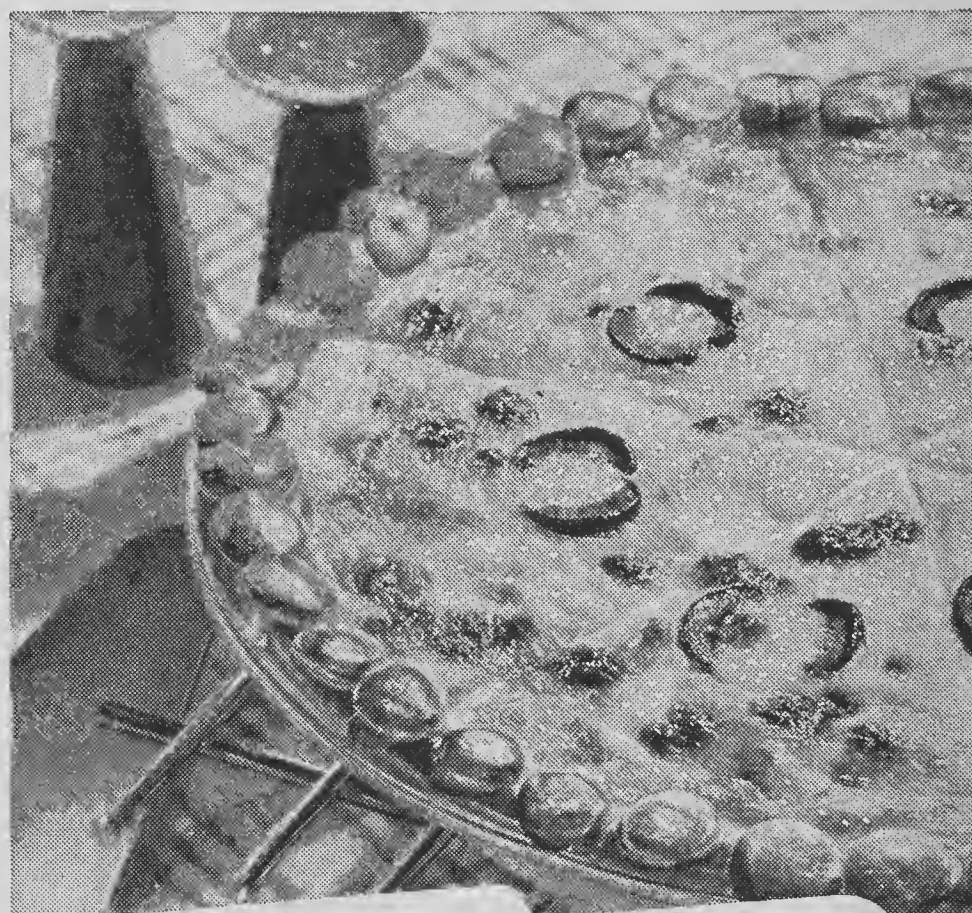
- | | |
|-----------------------|-----------------------------|
| 3 T. butter | ¼ tsp. salt |
| 4 T. flour | 3 egg yolks |
| 1 c. milk | 1 c. cooked meat,
ground |
| Few grains
cayenne | 3 egg whites |

Make a white sauce of butter, flour, milk and seasonings. Cool sauce slightly; stir in unbeaten yolks, then the meat. Beat egg whites stiff but not dry; fold in meat and sauce mixture. Turn mixture into buttered baking dish; bake in moderate oven (350° F.) for 30 to 45 minutes. When done, the center is firm to the touch when pressed lightly with finger. Serve immediately. Makes 4 servings.

New idea! "Yeast-Riz" crust makes mouth-melting



**TUNA-ONION
BROWN-UP**



"YEAST-RIZ" CRUST

Scald ½ cup milk. Stir in ¼ cup shortening, 6 tablespoons granulated sugar and ¼ teaspoon salt. Cool to lukewarm.

Meantime, measure into bowl ¼ cup lukewarm water. Stir in 1 teaspoon granulated sugar. Sprinkle with contents of 1 envelope Fleischmann's Active Dry Yeast. Let stand 10 minutes, THEN stir well. Stir in lukewarm milk mixture. 1 well-beaten egg and 1½ cups once-sifted all-purpose flour; beat until smooth. Work in an additional 1¼ cups (about) once-sifted all-purpose flour. Knead. Grease top. Cover. Let rise until doubled in bulk—about 1½ hours. Punch down; divide into 3 pieces. Roll each into 10-inch circle and press firmly into 9-inch pie pans. Crimp edges. Brush with 1 slightly beaten egg white. Let rise until doubled in bulk—about 20 minutes. Prick with fork. Bake in

moderate oven, 350°, 8 minutes. Do not brown. Fill and bake—or cool, stack and wrap partially-baked crusts in foil and refrigerate up to 10 days. Yield: 3 pie shells.

TUNA-ONION BROWN-UP

Melt 2 tablespoons margarine in a large frying pan. Add 2 cups thinly-sliced onion; cook until tender. Add 1 can (approx. 7 ounces) tuna fish (drained and flaked)—or use 1 cup diced cooked poultry, 4 sliced ripe olives (optional), 1½ teaspoons salt and ¼ teaspoon pepper; heat well. Meantime, scald ¾ cup milk. Stir hot milk into 2 beaten eggs; mix in 2 cups shredded Swiss or old cheddar cheese (½ pound). Turn hot tuna mixture into one "Yeast-Riz" Crust; pour hot cheese mixture over it. Bake in moderate oven, 350°, 20 to 25 minutes. Serve hot. Yield: 4 to 6 servings.

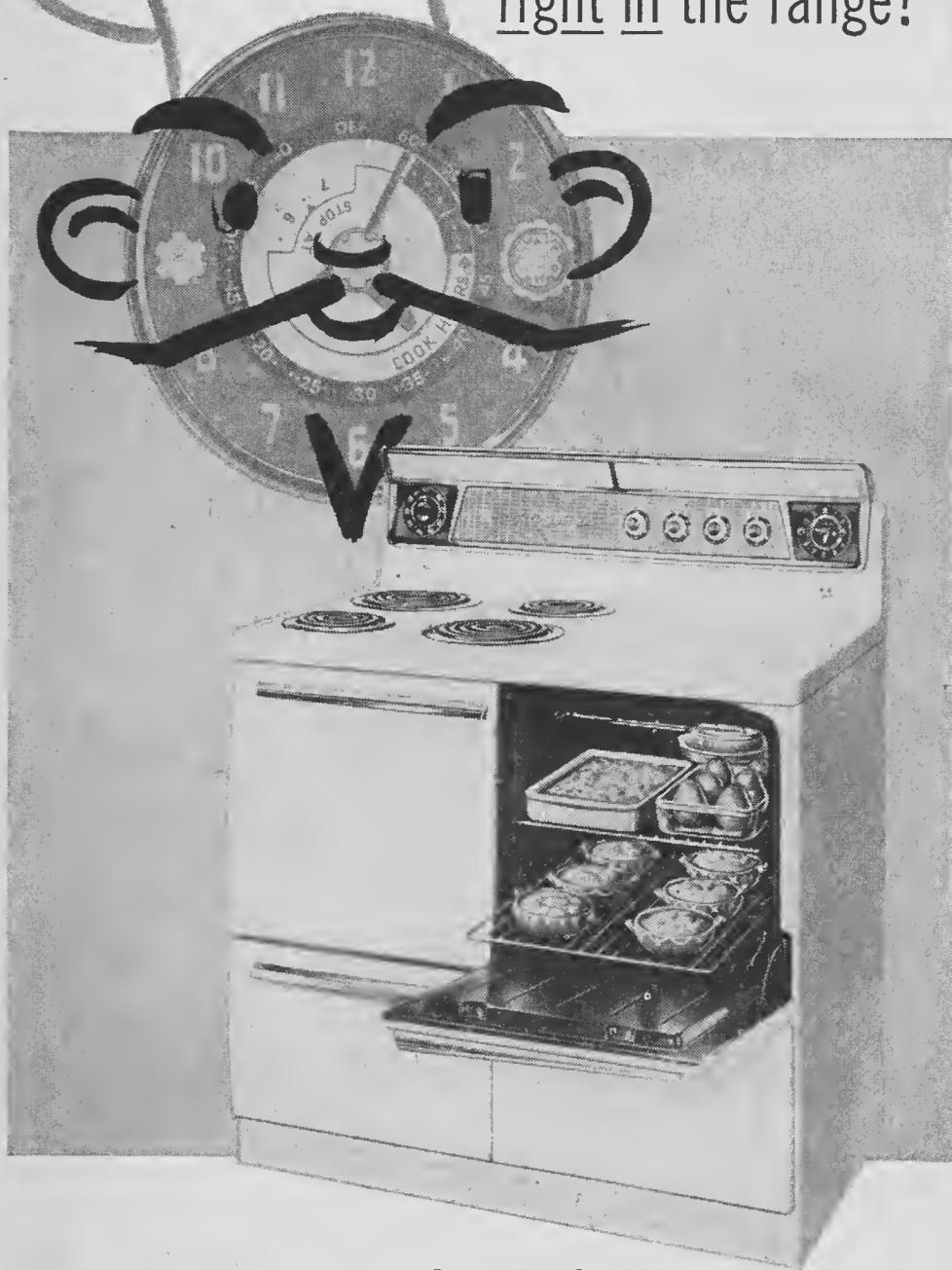
A week's work in a wink!

Make light, tender "Yeast-Riz" crusts on Tuesday . . . and store them in the refrigerator till needed. Fill one with tangy tuna filling on Wednesday . . . one with beef stew on Saturday . . . another with chicken a-la-king on Sunday. They brown in mere minutes . . . are always wonderful when you use Fleischmann's Active Dry Yeast! If you bake at home, keep several on hand for tempting main dishes . . . at a moment's notice!



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ALWAYS ACTIVE, FAST RISING
KEEPS FRESH FOR WEEKS**

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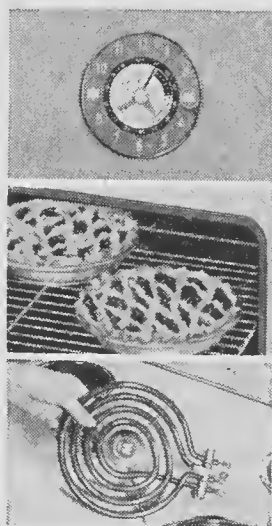


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Pies A-Plenty

Try some new filling and pastry recipes to make your pies even more popular with family and friends

by ANGELA FIELD



For a dessert with a refreshing tang serve fluffy light lemon chiffon pie.

PIE is a favorite dessert in most families, whether it is deep apple or rich, syrupy raisin. Fluffy chiffon pies are "just right" for a special occasion while fruit-filled meringue shells lend a party atmosphere to the simplest meal. Whatever type you choose — fruit, cream, chiffon or custard, plan to make plenty; there will probably be calls for second helpings all around.

One of the important features of any pie is the crust. Tender, flaky pastry is easy to make if you follow measurements exactly, use icy cold water and handle the dough gently. Special care is needed in rolling the pastry. Roll with light, short strokes from the center to the edge until the crust is one-sixteenth of an inch thick. Then place it carefully in the pie plate. If the crust is baked separately (as for cream pies) prick the entire surface with a fork to prevent the baked shell from blistering.

If you have a freezer, pies and pastry shells can be made in quantity to use later as needed. Fruit pies are usually more successful if they are frozen in the raw or unbaked state. Fresh or frozen fruits make better fillings than canned fruits. To freeze pies, prepare them in the usual manner but don't make slits in the top crust; leave this until the pie is ready to be baked. For packing, glass or aluminum foil pie plates are most satisfactory. Then cover with an inverted paper plate, wrap with freezer paper and seal. Of the cream pies, chocolate and lemon chiffon freeze most successfully. Meringue toppings should be added just before serving. Plan to use frozen pies within six months.

If you don't own a freezer you can save time by making a pastry mix. The mix is prepared ahead of time and contains all the ingredients except water. Use a high quality shortening and all-purpose flour for good results. Stored on the pantry shelf in a tightly covered container, it will keep for six months. To use, spoon the mix into a

measuring cup and add the required amount of water.

Pastry Mix

2 c. shortening 1 T. salt
6 c. sifted flour

Sift flour and salt in mixing bowl. Cut in shortening, using pastry blender or fork, until mixture is consistency of cornmeal. Store in covered container in cool place.

To use: Place pastry mix in bowl, 1½ c. for one-crust pie, 2½ c. for two-crust pie. Sprinkle 2 to 4 T. water over pastry. Toss together. Use only enough water to hold dough together. Place on waxed paper. Press into a ball. Roll.

Hot-Water Pastry

½ c. boiling water 2 c. sifted flour
⅔ c. shortening ¾ tsp. salt

Pour water over shortening; beat until creamy. Cool. Sift flour and salt; add to shortening; mix to soft dough with fork. Wrap in waxed paper; chill before rolling. Makes pastry for one 8-inch double crust pie.

Never-Fail Pastry

1 lb. shortening 1 tsp. salt
4 c. flour 1 egg, beaten
1 tsp. baking powder 1 T. vinegar

Mix shortening, flour, baking powder and salt. Beat egg in measuring cup; add to it vinegar, then fill to three-quarter mark with cold water. Add liquid to dry ingredients; mix well. Shape in a roll and store in refrigerator. Makes pastry for 3 large or 4 small two-crust pies.

Lemon Chiffon Pie

4 beaten egg yolks ¼ c. cold water
½ c. sugar ½ c. sugar
½ c. lemon juice 4 stiff-beaten egg whites
½ tsp. salt 1 baked 9-inch pastry shell
1 T. unflavored gelatin ½ c. heavy cream, whipped
1 tsp. grated lemon peel

Combine egg yolks, ½ c. sugar, lemon juice and salt; cook in double boiler until thick, stirring constantly. Add gelatin softened in cold water; stir until gelatin dissolves. Add lemon peel and cool until partially set. Beat remaining ½ c. sugar into egg whites and fold into cooled

mixture. Pour into cooled baked shell; chill pie in refrigerator until firm. Spread with sweetened whipped cream before serving. Or cream may be folded into filling with egg whites.

Angel Pie

4 egg whites 1 c. sugar
 ½ tsp. cream of tartar ¼ tsp. salt
 ½ tsp. vanilla

Beat egg whites until foamy, add cream of tartar and salt and beat until stiff. Add vanilla, then sugar gradually, beating all the time. When very stiff, heap in a well-greased 9-inch oven glass pie plate, building edges a bit higher than the center. Bake at 275° F. for 1 hour, or until creamy in color, dry and firm. Let cool thoroughly before spreading with pear filling:

Pear Filling

4 egg yolks, 1 T. grated lemon
 beaten rind
 ¼ c. sugar Dash salt
 1 c. canned pears

Combine egg yolks, sugar, lemon rind, salt and ¾ c. pears (drained and sieved.) Save two halves for garnishing top. Cook over hot water, stirring constantly until thick and smooth. Cool. Spread over center of cold meringue, then cover pear filling with a topping made of 1 c. whipped cream, 2 T. sugar, ½ tsp. vanilla and ¼ c. shredded coconut. Garnish top with reserved pears and store in refrigerator 12 to 24 hours. Serves 6 to 8. Note: A variation can be made by filling meringue shell with fresh or frozen fruit and topping with sweetened whipped cream or ice cream.

Eggnog Pie

3 beaten egg ½ tsp. vanilla
 yolks 3 stiff-beaten egg
 ½ c. sugar whites
 2 c. light cream 1 recipe plain
 Dash salt pastry
 Dash nutmeg

Beat egg yolks, sugar and cream. Add salt, nutmeg and vanilla. Fold in egg whites. Pour into 9-inch pastry-lined piepan. Bake in hot oven (400° F.) 25 to 30 minutes. Sherry or rum flavoring may be substituted for vanilla.

Apple Crumb Pie

4 large, tart ½ c. sugar
 apples ¾ c. all-purpose
 1 recipe pastry flour
 ½ c. sugar ⅓ c. butter
 1 tsp. cinnamon

Pare apples; cut in eighths and arrange in 9-inch pastry-lined piepan. Mix ½ c. sugar with cinnamon; sprinkle over apples. Sift ½ c. sugar with flour; cut in butter until crumbly. Sprinkle over apples. Bake in hot oven (400° F.) 40 to 50 minutes.

Banana Chocolate Cream Pie

10-inch unbaked 2 egg yolks,
 pie shell slightly beaten
 1½ squares un- 1 T. butter
 sweetened ½ tsp. vanilla
 chocolate 2 large ripe
 2½ c. milk bananas
 ¾ c. sugar ½ c. whipping
 3 T. flour cream
 ½ tsp. salt Grated chocolate

Melt chocolate squares in top of double boiler over boiling water. Add milk slowly, stirring constantly. Beat with egg beater to blend thoroughly. Mix sugar, flour and salt together. Stir into hot mixture. Continue to stir and cook until well thickened. Cook 10 minutes longer, stirring occasionally. Stir a little of the hot mixture into beaten egg yolks, blend into remaining hot mixture and cook 1 minute longer. Add butter and vanilla. Cool thoroughly. Cover bottom of pie shell with one-third of chocolate filling. Slice one peeled banana onto pie filling. Cover with more filling and with other sliced banana. Top with remaining filling, garnish with whipped cream and sprinkle with grated chocolate. Chill well.

Raisin Criss-Cross Pie

1 c. brown sugar 3 T. cornstarch
 2 c. seeded raisins 1½ c. water
 Grated peel and ¾ c. walnuts
 juice of 2 1 recipe plain
 lemons and pastry
 1 orange

Combine sugar, cornstarch, water, raisins, grated peel and fruit juice; cook over low heat until thick. Add nuts; pour into 9-inch pastry-lined piepan. Make lattice-top crust; flute edge. Bake in hot oven (400° F.) 40 minutes.

Pecan Pie

½ c. sugar ¼ tsp. salt
 ¼ c. butter 3 eggs
 1 c. light corn 1 c. pecans
 syrup 1 recipe pastry

Cream sugar and butter; add syrup, salt; beat well. Beat in eggs, one at a time; add pecans. Pour into 9-inch pastry-lined piepan. Bake in oven at 350° F. for 1 hour and 10 minutes. V



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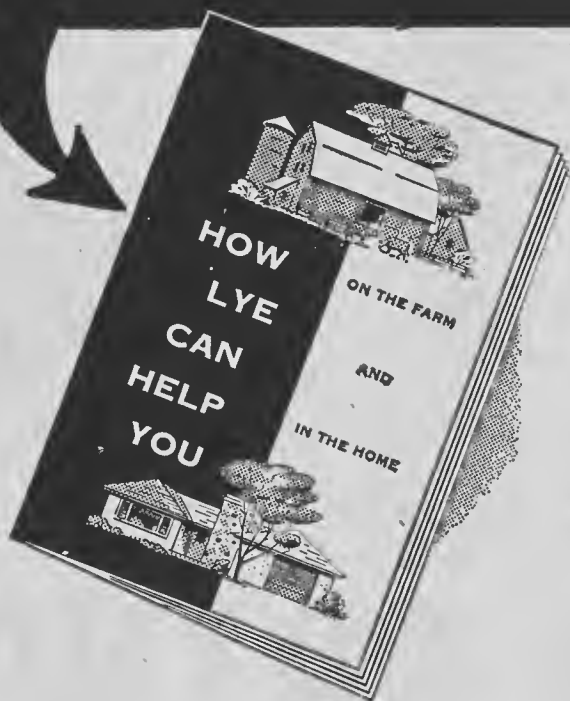


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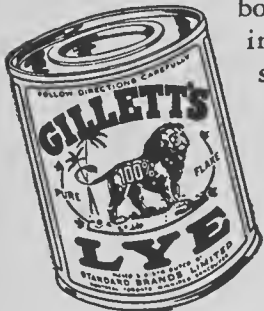


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BABY'S OWN TABLETS



Progress in Polio

Continued from page 57

Soon there may be universal protection against poliomyelitis. World Health Organization, a specialized agency of the United Nations, has recommended that all countries plan to bring vaccination into routine use at an early date.

A leading American pediatrician has recommended that polio "shots" for babies be given at the age of three months, at the same time as they receive their combination injections for diphtheria, tetanus and whooping cough. Research is now being conducted to determine if polio vaccine can be combined with the triplicate vaccine.

Meanwhile Dr. Salk, a central figure backed by the efforts of hundreds of other research workers, continues to test the blood of vaccinated children to determine when immunity is dropping, and at what period after vaccination a "booster shot" should be administered, if one is required as is the case in other communicable diseases . . . i.e., diphtheria.

Medical staff of "special" hospitals now have much experience behind them in the care and treatment of polio patients. There is new and better equipment to work with and the aid of trained physiotherapists. When a patient is admitted to hospital with polio the staff is alert first to note any indication of respiratory involvement, and if it becomes serious the patient is moved into an iron lung. The next step is to attempt to relieve pain and release muscle tightness. With older children and adults the physician must be alert to properly support weakened limbs. Here physiotherapy is gradually started. Gentle stretching of contracted muscles begins; later there may be stretching by plaster wedging, traction splints or surgery.

Next comes the attempt to co-ordinate muscle action, with tests taken from time to time to gauge the strength of individual muscles. Hydrotherapy is employed . . . i.e., patients exercise in heated swimming pools, the buoyancy of water making walking almost easy. Occupational therapy is provided. Through knitting, weaving, or painting the patient makes use of stiffened muscles, and develops an interest. For the patient so discouraged that he cannot make physical progress, there is the psychology-

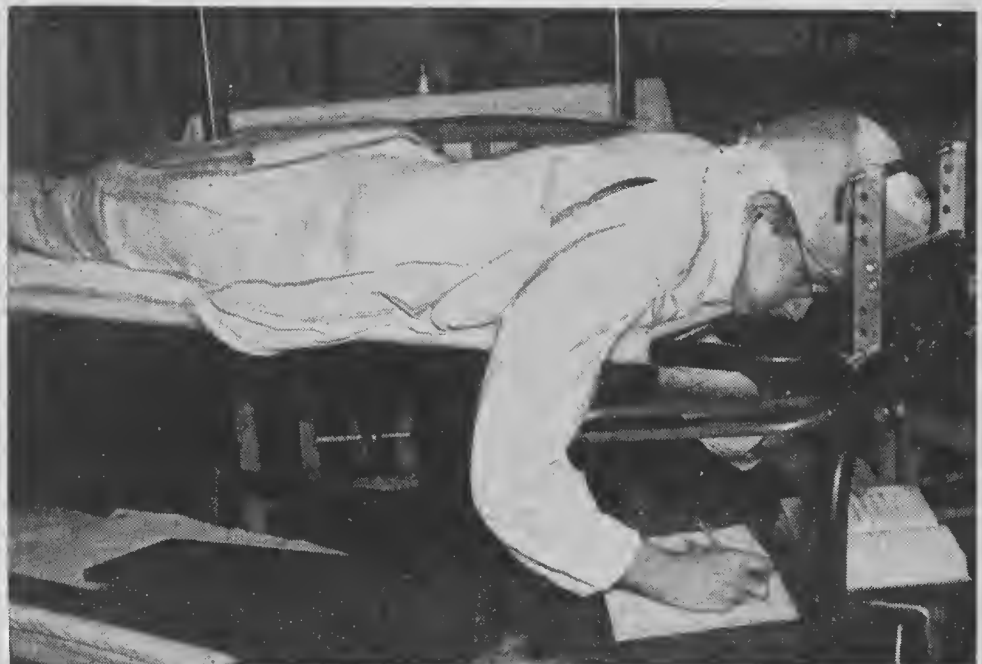
trained social worker who hears all tales of woe, and attempts to turn frustration into a desire to get well and out into a happier and more useful life.

When the patient is sufficiently recovered, braces and crutches can be introduced, and the dream of "going home" is almost a reality. Here volunteer organizations often do outstanding work, helping the patient get back on his feet financially, then transporting him back and forth to hospital for treatments. Each province in Canada handles its rehabilitation of polio patients in a different way, with the Canadian Foundation for Poliomyelitis and its service club volunteers taking on where governments leave off.

POLIO is a disease that strikes cruelly, sparing neither the well-nourished and healthy nor the sickly. Parents may play their part in its prevention by having their youngsters take the following precautions during the "polio season," usually the months from June to October.

1. Avoid overtiring and extreme fatigue from strenuous exercise, work or play.
2. Avoid sudden chilling such as would come from a plunge into extremely cold water on a hot day.
3. Do not swim in polluted water.
4. If possible avoid tonsil and adenoid operations during the polio season. Study has shown that such operations, at this time, tend to increase the danger of contracting polio in its most serious form.
5. Keep flies away from food. Flies have repeatedly been shown to carry poliomyelitis viruses.
6. Pay careful attention to personal cleanliness, such as thorough hand washing before eating and when handling food.
7. Avoid all unnecessary contact with persons with any illness having symptoms similar to those of polio.

April, in Canada, has been designated "Easter Seal" month, a time when service clubs make their annual appeal for funds to finance therapeutic work, in hospital and out, with crippled children. For years it was the polio patients who needed this aid . . . now, with fewer persons being struck down by polio, there is opportunity to spread this money over a field which includes children suffering from other crippling diseases. V



With lung muscles involved, Rudy Klassen had to wear a cast for two years. A rolling stretcher enabled him to carry on with grades nine and ten studies.

Something for Nothing?

Some pertinent points about trading stamp schemes that the public ought to know

by PHYLLIS A. THOMSON

WILL trading stamps be allowed to continue in Canada, or will the opposition of business associations and consumer groups be sufficient to prevent their rapid growth? This is a big question in the minds of Canadians today — particularly in eastern Canada, where stamps have run riot. Labor groups, merchants, consumers and producers have joined forces in the war against stamps, and if their efforts along with government statutes have any weight, the victory should be theirs.

After becoming established in the East, stamp companies are eager and ready now to do business in the western provinces. But opposition is strong. In Manitoba, charges have already been laid and convictions obtained against trading stamps, under provisions of the Criminal Code. Saskatchewan's Attorney-General, Hon. R. A. Walker, in a public statement made early in January, warned merchants against the trading stamp racket. He said the public paid the cost of the scheme and urged merchants to "keep this racket out of Saskatchewan." Alberta's deputy minister of industries and labor, John E. Oberholtzer, told Albertans that the "use of trading stamps is not in accordance with the industries and labor code. We are in sympathy with the better business bureaus, the Retail Merchants' Association and the cham-

bers of commerce, in their efforts to crush the practice." In Victoria, the police commission instructed the chief of police to prosecute under the Criminal Code, any merchant dealing in trading stamps in that city.

Trading stamps, for you who may not have seen them, are small snips of paper gaily engraved with "get-rich-quick" themes, such as oil wells, dollar signs, cornucopias. For every ten cents worth of goods bought, the purchaser receives a stamp in return. These are collected in books, and when one is full, usually representing about \$120 worth of goods, it can be exchanged for any number of articles, including household appliances and furnishings, toys, expensive luggage, silverware and jewelry.

TRADING stamp schemes are not new. They have been in operation in the United States since 1880 and were first introduced to Canada at the turn of the century. At that time, the Retail Merchants' Association of Canada, recognizing the inherent weaknesses of such schemes, was able, through its representations, to persuade the government to legislate against the use of trading stamps. When the revised Criminal Code was being considered by Parliament in 1954, submissions were made by certain trading stamp promoters, urging repeal of the present provisions. Although the government refused to act on their request, stamp plans have spread like wildfire since. In 1954 there were no trading stamp companies in Canada. In 1955 there were six. Today there are at least 31 operating in Canada, and many others seriously considering opening up for business.

One of the largest stamp organizations in the United States was started in 1896, and now has over 60,000 merchants as customers. Last year alone, the business grossed more than



This shopper in an Ottawa store accepts trading stamps for her purchases. For every ten cents worth of goods purchased, she receives a stamp in return.

\$100 million, though the exact volume is kept secret. In Canada, although there are no accurate figures available, it has been estimated that profits for trading stamp companies are substantial. Last year, according to the Dominion Bureau of Statistics, Canadian retailers did a \$12 billion business in this country. Since trading stamps cost merchandisers from two to three per cent of their gross sales, the potential revenue available in Canada from trading stamps could be somewhere between \$240 million and \$360 million annually.

Stamp schemes come into operation when the stamp companies sell their books to local retailers of dry goods, foods, gasoline and other commodities. The retailers offer and distribute stamps to their customers, who, in turn, accumulate the required number of stamps in books, and redeem them for desired articles.

Stamp companies do not question the cost to the retailer of stamp plans; rather, they argue that the extra cost will be returned in the form of increased sales, even as high as 50 to 60 per cent. This may be the case when only one or two companies offer stamps, because consumers presumably flock to the stamp stores and forsake the stores who do without them. However, the non-stamp stores soon resort to buying stamps, and their customers return. Under these circumstances, is there really an over-all increase in sales? The merchandiser has greater costs because he is now buying stamps to satisfy the consumers' demand. And since his costs have increased, the prices of his goods and services have increased. The consumer, in effect, is paying for the stamps being given away.

Once stamps are adopted, merchandisers will want to pay less for the goods they buy, to compensate for their increased expenses. As producers and consumers, rural families are doubly affected by the consequences of trading stamps.

Some stores may do sufficient business to assume part, or all, of the extra financial burden. Providing this is true, the retailer still is not likely to take the cost of the stamps out of his profit. If he doesn't raise the price of his goods he might carry more high-priced brands, where the margin of profit is larger. As a result, he will probably offer fewer low-priced specials and fewer services.

MORE serious, though, is that trading stamps divert the consumer's attention from what she is buying. In the effort to complete a trading stamp book, she might buy more high-priced items than she needs, or can afford. Once started on the stamp merry-go-round, a consumer shops only at stamp stores, so she can fill her books. It is becoming increasingly apparent, in regions where stamps are in general

(Please turn to page 67)



Selecting premium from the display.

The Retail Merchants' Association of Canada is opposed to trading stamps for these main reasons:

- They create false standards in the public mind, because they are based upon a theory of giving something for nothing.
- They tend to force retailers to emphasize stamps and premiums, instead of quality products at fair prices.
- They are illegal in Canada under Sections 322 and 369 of the Criminal Code.
- They add to the cost of doing business, which must be passed on to the consumer.
- They exert an "influence to buy" that reduces the need to be competitive.



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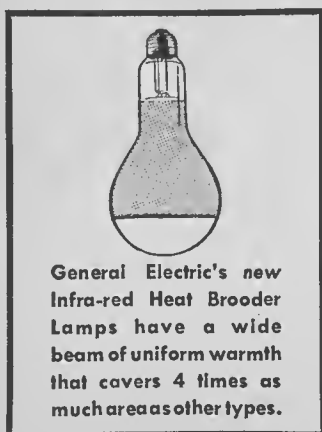
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by ANNA LOREE



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Design No. 7743

For your home here is a crocheted luncheon set you will enjoy for many years to come. Individual pieces could be used for runners or doilies. Choose a delicate pastel to give an added spark to other table appointments. The separate motif measures 2½ inches square while finished "doily" is 12½ x 17½ inches. Materials: 6 balls white or 7 balls ecru crochet cotton size 30, size 10 crochet hook. Design No. 7743. Price 10 cents.



Design No. C.P-C. 6495

Gloves give a finished look to any outfit and these crocheted daisy gloves are particularly attractive. Made in popular "shortie" style, they have delicate appearance yet are strong wearing. Crochet several pairs to harmonize with spring and summer outfits. Would make a charming gift for a special friend. Materials: 1 large ball white or colored crochet cotton size 30, No. 10 crochet hook and 6 small buttons. Note: Directions given for Small, Medium and Large. Design No. C.P-C 6495. Price 10 cents.

Design No. S-SS-19

For the lady in waiting here is a smartly embroidered maternity jacket. Directions for making child's smock also included. Materials for maternity jacket: 2½ yards broadcloth, 36" wide, organdy 16" x 9", 8-inch zipper, 1 yard rick rack ¼" wide, embroidery cotton. Child's smock: ¾ yard broadcloth, organdy 5" x 10", 6-inch zipper, embroidery cotton. Design No. S-SS-19. Price 10 cents.



Address orders to The Country Guide Needlework Department, 290 Vaughan Street, Winnipeg 2, Manitoba.

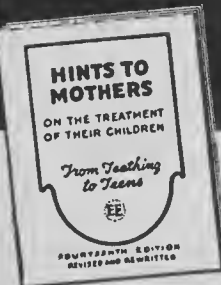


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Something For Nothing?

Continued from page 65

use, that up-to-date merchants who offer lower prices are actually attracting fewer consumers than stamp stores.

The gravity of the situation led the Canadian Association of Consumers to pass a resolution at its annual meeting in October, 1956. This resolution condemned the giving of trading stamps, because the practice:

1. Tends to make the quality of the product a secondary consideration in marketing, since the size or nature of the bribe attached to an article can become the first consideration.
2. Turns merchandising toward increasingly costly forms of competition where the promotional lure attached to a product becomes the real item bidding for consumer approval.
3. By-passes reduction in prices as a legitimate competitive weapon, in favor of a system that penalizes the many consumers preferring cheaper merchandise to unsought premiums.
4. Inevitably increases merchandising costs generally, and those now adverse to adopting it are forced into using it.
5. Affects unfavorably our merchandising ethics as well as our growing sense of consumer responsibility.

The Canadian Federation of Agriculture at its annual meeting in January, also opposed the use of trading stamps.

A survey conducted by the University of Indiana indicates that supermarket sales must increase by at least 13 per cent, to cover the cost of trading stamps. In other types of retail trade, such as hardware, appliances, drugs, automotive accessories, a much greater increase is required. The survey concludes that stores of most classifications must increase sales volume by close to 50 per cent, to show a profit on trading stamps.

THE stamp companies, on the other hand, argue that the cost of stamps is a legitimate expense of doing business. They state that stamps promote sales in the same way as do air-conditioning, car-parks, packaging or advertising, adding neither more nor less to the merchandise. Some retailers share this opinion and cut advertising costs to offset the price of the stamps. Stamp companies insist that they perform a distributive function, because redemption centers become an important outlet for retail goods.

It can be argued that trading stamps have other merits. Women derive a sense of thrift from getting articles with stamps "saved" from the grocery money, that in all probability they would not have obtained otherwise. However, stamps are being paid for in one form or another, as are soap coupons, gaudy packaging and premiums in cereal packages. In other words, every expense is ultimately passed on to the consumer.

But the most significant point is whether the use of trading stamps

adds more or less to sales promotion, or whether they are being used as a substitute for other appeals to the consumer. If using stamps does not increase the over-all promotional expenditures, and if the practice doesn't raise retail prices, the consumer should derive more benefit from them than from other forms of advertising. But this has yet to be established.

The fact remains that, in Canada, trading stamps are not legal and that we are flouting the law by using them. If an illegal practice is allowed to pass unchecked, the law is mocked, and disrespect for law is encouraged. According to the Criminal Code, passed in 1905, trading stamps are definitely illegal. In Chapter 51, Section 369, the code states:

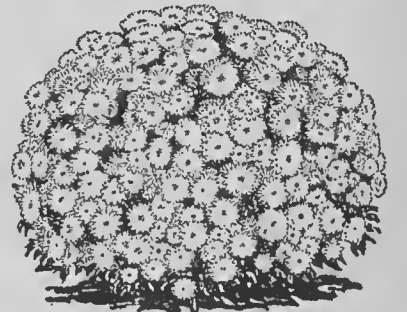
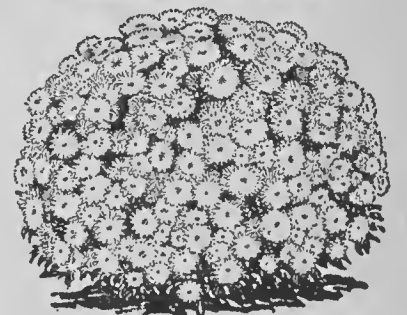
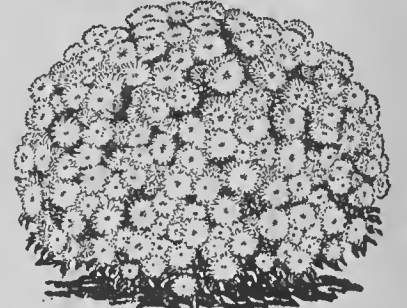
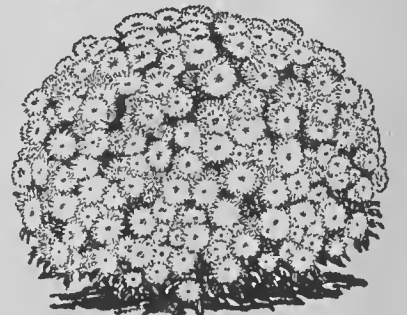
1. Every one who, by himself or his employee, or agent, directly or indirectly issues, gives, sells or otherwise disposes of, or offers to issue, give, sell, or otherwise dispose of, trading stamps to a merchant or dealer in goods, for use in his business is guilty of an offence punishable on summary conviction.
2. Every one who, being a merchant or dealer in goods by himself or his employee or agent, directly or indirectly gives or in any way disposes of or offers to give or in any way dispose of, trading stamps to a person who purchases goods from him is guilty of an offence punishable on summary conviction.

Notwithstanding the fact that this is the law of Canada and that its clear intent is to prevent the use of trading stamps, the effectiveness of a law is often not established, until it is decided by the courts. This is evidently true of the law respecting trading stamps.

What does all this mean to the consumer? If one decides that the advantages of trading stamps outweigh the disadvantages, there are a few points to consider. It is unwise to buy articles merely to complete a stamp book. For an item that might cost 50 cents, the five stamps given in return are apt to be worth less than one and one-half cents. When selecting a premium, a consumer should choose carefully from the redemption center, or catalogue, to get the best "buy." If the premium obtained is found to be defective, marred, or otherwise functioning poorly, it should be returned to the stamp company and exchanged for an article in first-rate condition.

On the other hand, if one feels that trading stamps are detrimental to the community, steps may be taken to help remedy the situation. A consumer can purchase commodities from stores that do not issue stamps. If stamps are already in her possession, they should be redeemed, to prevent trading stamp companies from making further profits at her expense. A letter to the provincial M.L.A. asking him to have the Attorney-General take action to protect consumers is another way to combat the business. And finally, by belonging to a Women's Institute, the Canadian Association of Consumers, or a similar group, a consumer can share the work and responsibility necessary to bring about the defeat of trading stamp plans in Canada.

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For Mother and Daughter

No. 2001—Two new silhouettes to flatter the half-size figure. Pattern gives you a choice of short or three-quarter-length sleeves and slim sheath or gently flared skirt. Other features: V-neckline with softly rolled collar and button front. Sizes 12½, 14½, 16½, 18½, 20½, 22½. Size 16½ requires 3¾ yards for view 2, 4¾ yards for view 1 (both 36-inch material). Price 50 cents.

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No. 2020—A perky sun dress for a tiny toddler. Dainty rick rack trim gives pretty finishing touch to simply made dress. Pattern also includes dress with puffed sleeves, high neck and small round collar. Sizes ½, 1, 2, 3. Size 2 requires 1½ yards 36-inch material. Price 50 cents.

No. 2014—A pretty dress with a full whirling skirt rates high with teenagers. This one has all the favorite features: scoop neckline shaped to a V at back, short drop sleeves, slim bodice, gathered skirt. Button trim gives special touch. Same pattern includes a slim sheath skirt with kick pleat at back. Sizes 10, 12, 14, 16. Size 12 requires 3¾ yards 36-inch material. Price 50 cents.

No. 2009—A charming maternity outfit. Slim skirt is made with expansion-type waist for comfortable fit. Slightly flared jacket can be made sleeveless or with short sleeves. The becoming scooped neckline is cool and fashionable. Detachable collar gives crisp accent. Sizes 11, 12, 13, 14, 15, 16, 18. Size 14 requires 4½ yards 36-inch material. Price 50 cents.

No. 1989—The mother's dress. Buttons, bows and white trim give a crisp, fresh look so important this season. Dress features: high neckline, small collar, short set-in sleeves and skirt of soft unpressed pleats. Sizes 11, 12, 13, 14, 15, 16, 18. Size 14 requires 4¾ yards 36-inch material. Price 50 cents.

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Patterns are printed with instructions in English, French and German.

State size and number for each pattern.

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Order Simplicity Patterns from The Country Guide Pattern Service, Winnipeg 2, Man., or direct from your local dealer.

Outwitting Moths

By the use of sealed polythene bags for summer storage of woollen household articles



Fold the strip of wax-free paper in half, lengthwise to make top closing.

THE time for packing away winter woollies is almost upon us. In years past most of us carefully wrapped our woollen articles in brown paper after having sprinkled them liberally with camphor or moth balls. Considerable time was involved; and results were often not entirely successful.

Today the job has been greatly simplified so it requires little time; yet can be 100 per cent effective. First of all, wash the woollen goods carefully. Moths are more apt to harbor in clothing that has been worn. By washing the clothes first, you can remove any larvae that may be present, though unseen. Once the clothes are thoroughly clean you require some polythene film (or plastic bags) and a hot iron.

Polythene is a tough, translucent film. Often the grocer uses it to package fruits, vegetables and other edibles and it is used by manufacturers to protect a variety of textile articles. If you are re-using one of the plastic merchandising bags, make sure it isn't one of the perforated variety (the type usually reserved for vegetable produce). With the aid of an iron and a strip of brown paper, it's

easy to make a tightly sealed moth-proof storage bag at home. Here's all you do:

Place the article to be stored in the polythene bag. Select a piece of the wax-free paper and cut a narrow strip about three inches wide and as long as the opening to be sealed. Fold the strip in half lengthwise. Set the control on your iron to "wool" or heat it to a moderate temperature. Be careful not to let it get too hot, otherwise the plastic will melt. Then sandwich the two edges of the bag opening between the brown paper.

Using a medium heavy pressure, run the tip of the iron inward to a depth of about one-quarter to one-half inch. Keep the iron moving steadily but slowly. Don't retrace your path. After allowing a minute or so for the heat seal to cool, strip the brown paper from the plastic film. Test the seal by pulling both sides of the seam. If the two pieces of plastic aren't permanently welded together, the iron was either too cool or you moved it too quickly. Try again, this time going at a slower pace and using a little more heat. Be careful not to press too hard and don't let the iron stand still for a second or you will have a hole instead of a seam.

If all the polythene openings have been carefully sealed and the article has been thoroughly cleaned, it won't be necessary to use a moth repellent on articles you store.—P.A.T. ✓

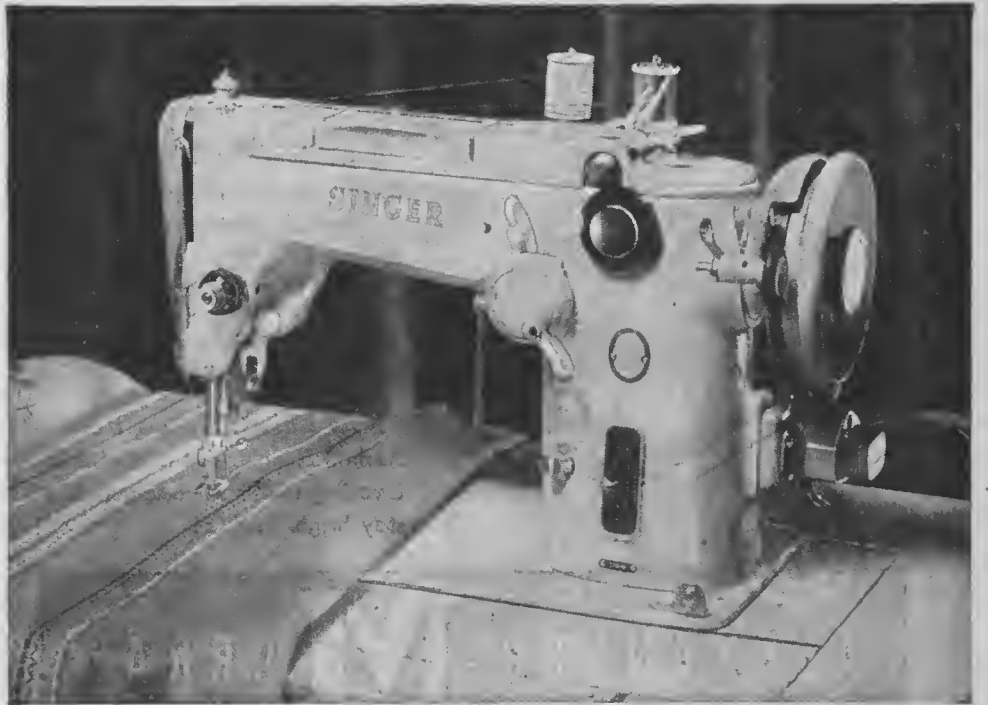
To store fine sweaters, hosiery, lingerie or linens easily and safely in bureau drawers and linen chests, line them with polythene film. There will be no rough surfaces to catch fine garments when the surfaces are lined with this smooth film.

To keep children's lunches fresh between the time of making and the time of eating, wrap the items individually in polythene film. This is a good idea for Dad's lunchbox too. The film will help to keep sandwiches, desserts, vegetables and fruits, fresh and crisp several hours. ✓



With iron heat set at moderate, move the tip at slow pace across the strip using medium heavy pressure. If iron is too hot the plastic film will melt.

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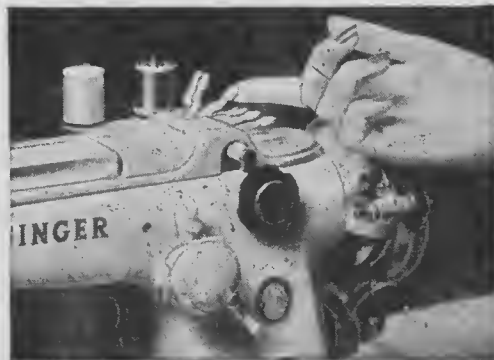
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The Little Hunter

Continued from page 58

arc into the air. I with my useless snare dragging after me, dashed in hot pursuit.

He landed on his feet, but the shock and excitement slowed him up. He started off, but my small boot kicked him from behind. He went end over end. I rushed again. He dodged. My foot struck a grass clump. I crashed down and my hip landed on the dodging gopher. With a small rock I finished him off. I had my first trophy!

I hugged myself. I stroked the gopher. I looked at his long front teeth, I studied his beady eyes and his claw tipped toes. I concluded that this was some gopher.

When Father came down the field to turn at the end of the round I stood by the fence, holding my victim up by the scruff of its neck. My head was thrown back, my chest was out, my feet were spaced apart. Surely Father would notice me now!

Father tied up the lines and walked over to the fence. He took the gopher out of my hand and looked at it slowly and carefully. "Hmm—!" he said. He looked some more. "Tell me about it," he said. "How did you get him?"

SPRINGS are short on the prairies, the soil was ready for the seed, storms and wet weather might be on the way. By nature Father was always a busy man. But on that memorable day he gave me his undivided attention while I gave him a ten-minute account of catching my first game.

When I finished he shook his head. "Yes, sir!" he said, "that is one very considerable gopher! Compared to the size of the hunter I'd figure him to be kind of like a moose or a grizzly bear." He looked again at the gopher. "No matter what you get later it'll likely never seem quite so big." He reached over the fence and stroked and then ruffled my hair. Then he went back to the drill, untied the lines, and clicked his tongue at the horses to make them start.

Cattle have grazed many crops of grass on the pasture since that time. Many times crocuses have bloomed and died. Other small boys and many generations of gophers have come and gone. But that afternoon of long ago still stands out as the bright jewel, in a long chain of a lifetime of outdoor experiences.

It has now been established that perspiration will effect certain dyes in garments and cause them to be susceptible to light fading. This factor of light fading, is most commonly found in trousers, slacks and sport shirts. These points were brought out in a paper given by Miss Audrey S. Tweedie of the Chemistry Division, National Research Council, Ottawa, on the subject of "Testing of Textiles from the Consumer Angle."

Miss Tweedie's paper was one of 33 technical papers delivered at the Canadian Textile Seminar at Queen's University, Kingston, Ontario, June 1956. She pointed out that dyeing techniques, now, can largely overcome this difficulty.



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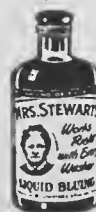
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CLARENCE
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APRIL days are here again and the outdoor world is calling to you, "Come out! Look up! Look down! Look all around you!" On the farm you see the first tiny baby chicks of yellow and black, new calves, new kittens, perhaps even a new pup of your very own.

"Cheer-up! Cheer-up!" Our robins are very sociable birds that build nests near buildings and like nothing better than a farmyard with horses,

chickens and pigs around. Have you noticed robins fighting in the spring? Or pecking at shiny hub caps? Or fluttering against windowpanes pecking at the glass?

A male robin comes to a certain territory and sings to announce to the world that he owns this place. He will fight off any male robin who tries to come into his territory. When he takes a mate then the two of them together fight to hold their nesting territory. One robin may build its nest on the north side of a house and claim the area on that side, while another robin builds on the south side and patrols the territory there, but seldom will they both build on the same side of a building. A robin catching sight of its own reflection in a window or shiny metal surface dashes at it to drive the intruder away. He may battle this imaginary enemy for days on end. Windows with darkened rooms behind them make the glass act like a mirror and attract the birds. Turn on the light in the room or hang a white cloth in the window and the bird will fly away.

Anne Sankey

"and you had to choose the spot where my violets are growing." She tried pushing the little bear; but she might as well have tried to push a stone wall. She couldn't move him. She had to get help. If she told her mother, the secret would be out. As she ran to the house, she had an idea. She burst into the kitchen.

"Mum," she said, "do you know how I could move a little brown bear off something that he's sitting on?"

Mrs. Green smiled. She thought Annie was pretending. "The only way I know to move a little bear," she said, "is to hold some honey under his nose. Little bears like honey."

"Do you have any honey?" asked the frenzied Annie.

"Yes, we've a jar of it in the pantry," said Mrs. Green.

Annie dashed to the pantry, reached for the honey, and went racing back to the woodland. She picked up a small fallen branch, and dipped it

into the honey. When she reached the drowsy little bear, she waved the branch under his nose. He began to lick his lips. Annie backed away from the bear. He got up and followed her. She threw the honey stick as far as she could throw it. The little bear, now wide awake, went after it. Annie knelt down beside the violets. "Oh you poor little things," she said as she began to straighten up the stems. She cried out in relief. "You're not broken," she said, "you're just bent. I think if I dipped you in the stream you'd straighten up again."

Annie dug up the clump of flowers with the trowel she had brought with her, and she set the flowers in the water. Within a few minutes the violets began to straighten on their stems.

On Easter morning they stood strong and beautiful in their green basket on the table. Annie's mother said that the forest had given her a treasure indeed. V

Violets and Honey

by Mary Grannan

ONCE upon a springtime, a little girl named Annie went walking in the deep woods. She knew that in the dark recesses of the forest the violets grew long stemmed and beautiful. It was too early for the purple flowers to be in bloom, but Annie was looking for a clump of them, which promised to be particularly lovely. She found one near a stream. She knelt down, and banked the soft black earth around its roots. "I'm going to take care of you, violets, because my mother loves you best of all the flowers. I'm going to tend you every day, and when Easter comes, I'll pick you and put you in a pretty basket and take you to her."

Annie was as good as her word. Every day after school, she made a trip to the forest to look after the flowers. One day she counted the buds. There were 23. Annie could tell that they were going to be very deep purple in color, and that pleased her. "You're doing very well for me, little violets," she said, brushing some pine needles away from their bed.

Mrs. Green was very curious about Annie's frequent visit to the woodlot beyond the south pasture. "Have you discovered a treasure in the forest, Annie?" she laughingly asked.

"A sort of a treasure," said Annie, mysteriously.

"A gold mine, perhaps?" said Mother.

"No," laughed Annie.

"Pirate's treasure!" said Mrs. Green. "Yes, I'm sure you've discovered a pirate's treasure."

"No," said the little girl.

"Do tell me," pleaded Mrs. Green. "I'm bursting with curiosity." Annie hopped about and sang,

*"I've a secret in the forest
It's down by the woodland stream.
It is very, very pretty.
It's half purple. It's half green."*

*It's a gift that's for my mother;
She will get it Easter day.
But till Easter it's a secret
In the forest far away."*

Annie laughed at her mother's puzzled expression. Mrs. Green sighed. "Well," she said, "if it's a gift for me, I shouldn't ask any more questions. I'll just have to wait."

On the Thursday before Easter, Annie's violets were almost in full bloom. The weather was chilly so Annie gathered some moss and put it around her precious clump of flowers. "This moss is to keep you warm, little violets," she said. "It would be awful if frost came in the night, and froze you. I think you'll be just right for picking on Saturday, and you should see the pretty basket I have for you. It's pale green, and it will look nice with your purple flowers and green leaves. Be good, until Saturday!"

Early on Saturday morning, a little brown bear who had been sleeping in a nearby cave all through the winter came out into the morning sunlight. He was groggy after his many months in slumberland. He staggered about among the trees and sat down. He sat down on Annie's violets. A short time later, Annie came singing through the forest.

*"Little violets, I am coming,
I am coming now for you.
I shall pick you for my mother;
She is going to love you, too."*

When Annie reached the stream where the violets grew, she cried out in dismay. She saw the little bear sitting on the flowers she had tended so carefully for so many days.

"Little bear," she said, "get up. Please get up. You're sitting on my violets. Please get up. Please."

But the sleepy little bear just looked at Annie drowsily and didn't move an inch. "Don't you understand me?" Annie said. She shook her head in desperation, and looked about her. "Here is a whole forest," she said,

Sketch Pad Out-of-Doors

No. 62 in series—by CLARENCE TILLENUS



REX.

SANDRIDGE, MAN.,
FEBRUARY 5 1957.

SLEEPING IN THE
KITCHEN.



THERE is nothing quite like the relationship of a boy and his dog. The boy who does not at some time have a dog of his own has missed a great deal. One thing only is lacking: dogs do not live as long as we, and when the time comes for parting, it is hard to bear.

The last dog I had as a boy was my dog. He was more than any other dog, and when he died it seemed no dog could replace him. I never owned another.

However, many dogs are friendly by nature and while they may only give their total allegiance to one man, it does not prevent them being on friendly terms with many. Whenever we visit my brother's farm, there is one greeting we can usually expect first of all—a couple of barks, and then a frenzied tail wagging and a cold nose pushed into your hand to say Hello. That is Rex.

He is a cheerful, little, reddish-yellow dog colored much like a fox. Like most farm dogs, he has strong

views on what is proper procedure around the farm. Strange cows or horses coming into the yard do so at their peril. The barn is for the cats and there they are free to prowl, but the neighborhood of the house is out-of-bounds to them and this Rex strictly enforces.

He becomes uneasy when I take out my sketchbook and often if a sketch takes too long and he feels my eye on him too steadily, he will get up and come over to be reassured with a pat and the word that all is well before he will lie down again—which usually means beginning a new sketch.

Like Gus, our cat, he probably does not realize what a good model he is, and likely feels that as long as he takes care of the farm in his own way nothing more should be expected of him.

(Sketch Pad Out-of-Doors series now available in book form from The Country Guide, Winnipeg. Price post-paid \$1.00). V



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How to Determine Right Pulley Width

by W. F. SCHAPHORST

DON'T buy pulleys that are too narrow. Some users of pulleys make the mistake of buying them of exactly the same width as the belts that are to be used on them. True, if the pulley and belt were perfectly aligned such practice would be all right. There would be no overhang at any time. But unfortunately, it is extremely difficult to do a perfect job of belt aligning. That is why one manufacturer pointed out not long ago that, "a belt half off the pulley is only half a belt." Thus, if the pulley purchased is of the same width as the belt, and if there is any swaying from side to side, the capacity of the belt will naturally be reduced in proportion to the overhang.

An excellent rule to use for determining the proper width of pulley is this: Multiply the width of the belt in inches by 1.15 and add 0.3 inch. For example, for a 10-inch belt we have 10×1.15 equals 11.5. Adding 0.3 we get 11.8 inches. However, standard pulleys are not made exactly 11.8 inches wide, and we must select a pulley 12 inches wide, which is a standard size. It is usually better to be sure and use a pulley that is too wide, rather than one that is too narrow. In the same way, it is usually better to use a belt that is too wide rather than one that is too narrow.

The problem of pulley, or sheave, width does not exist in connection with V-belt selection. As made in standard sizes the sheaves are always wider than the belts. Overhang is impossible. That is one of the advantages of V-belt practice. V

Iceland Farms Dependent on Grass

WITHOUT trees or mineral deposits, Iceland is a country depending almost entirely on fishing and agriculture. But even agriculture is not easy, because cereal crops seldom mature there. What, then, can Icelandic farmers produce?

J. B. Campbell of the Swift Current Experimental Farm, Sask., who has been studying Icelandic agriculture, says that the only field crop, practically speaking, is grass. The principal types are creeping red fescue, des-champsia, northern blue grasses and species of bent grass. If the entire country were arable, it would have tremendous resources, but less than 15 per cent of the 40,000 square miles can be developed, another 15 per cent produces some kind of vegetation, and the remainder is a cold desert of glaciers, barren mountains, black shifting sand, and extinct or active volcanoes.

There are 6,000 square miles of arable land, and less than 400 are improved to produce cultivated grasses at present. Fertilizers are essential, and applications of up to 400 pounds of ammonium nitrate per acre are considered economical. Legumes have little value, because temperatures are too low to stimulate organisms for producing nitrogen in the soil. Phosphorus is needed on all soils, and potash and some trace elements are valuable in some parts.

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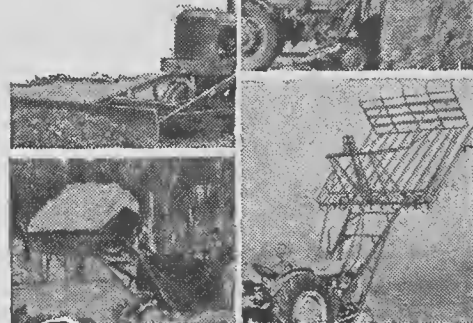
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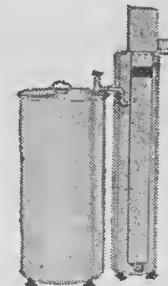
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The chief farm chore is haymaking, using scythes and rakes wherever tractors and mowers cannot operate. The growing season is short, but many can take a first cut of hay, a second of silage, and leave some for pasturing. Their 600,000 sheep are wintered indoors and go out on the range after lambing, where they stay until fall, when the lambs are slaughtered. Ranges belong to the district, and not to individuals, and no charges are collected for range improvement.

The University Research Institute is introducing new strains of old grasses, for reseeding eroded areas and increasing the yield on grassland farms. The four experimental farms and some progressive farmers are leading Icelandic farmers into a new era of good husbandry and proper fertilization, which they hope will replace some of the old husbandry practices that a hard core of independent Norsemen still follow. V

Sanctuary For Honkers

Continued from page 11

prime, by gunfire, disease, or predators, they may live for 20 years or more. Alf has found that they exist in the ratio of three males to one female—the same ratio as in the original birds found by the tracks—, and he surmises that this is true for the goose population. Canadas usually mate in the third year, and for life. They are monogamous; observations made at the Jack Miner sanctuary at Kingsville, Ontario, confirm this.

ALTHOUGH geese choose nesting sites on the ground, or even a flat rock, Alf was successful in getting a female to lay her eggs in a nest box he had built and placed 32 feet up in a tree.

"How did the young goslings get out of the nest?" we asked.

"I don't know," Alf answered, a little sheepishly, "I ran over to get Game Warden Glen Parsons to witness that the geese had actually used my nest box, and didn't see the young leave the nest."

We questioned several naturalists on this and were assured that the young goslings would jump from the nest, and not taxi down on their mother's back as we poetically hoped.

Alf has had many examples of the trust that these wild geese have come to place in him. The old gander who so fiercely guarded his young mate and kept Alf at a distance, suddenly came up on a rock to him, as if for protection. Looking around, he saw a wild mink, a natural enemy of geese, lurking near the dam. One mother goose even brought her family to his doorstep for a handout. Jack Miner cites case after case where wounded geese made their way to his goose hospital for aid.

Geese are devoted birds. If his mate is shot down the gander will frequently return to hover over her body. This devotion can mean suicide, for gunners take advantage of this human-like trait during the hunting season. Often when a leader is downed the young geese will drop out of the flight and circle low over him.

It is almost impossible to get within range of a flock of feeding Canadas, for always one long neck is craned

and a pair of beady black eyes keep watch in all directions. The geese at the sanctuary can only be approached slowly and gradually. They quickly take to wing, or water, at any quick movement or suspicious noise.

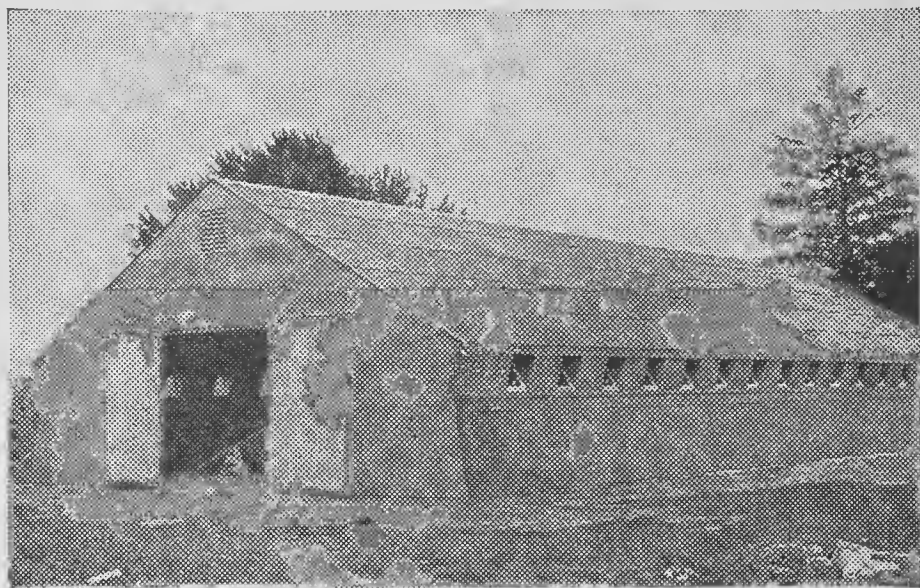
BECAUSE these great birds have become so much a part of his life, Alfred Hole, now in his late seventies, became concerned about the future of his wild geese. By an arrangement with the Manitoba government, his holdings will be maintained as a provincial sanctuary, open to the public and developed as a waterfowl research

center. Ducks Unlimited are co-operating in the project and have recently built a series of four dams to enlarge the lake and stabilize the water level. Thus, it is assured that wild geese will continue to find refuge at this spot for years to come. It is hoped that this sanctuary will gain equal prominence with the Jack Miner sanctuary at Kingsville, and the Severn Wildfowl Trust in England, operated by the famed wildlife artist and author, Peter Scott.

The earliest return of geese recorded at Rennie was March 17, but the main flocks fly in from April 1 to

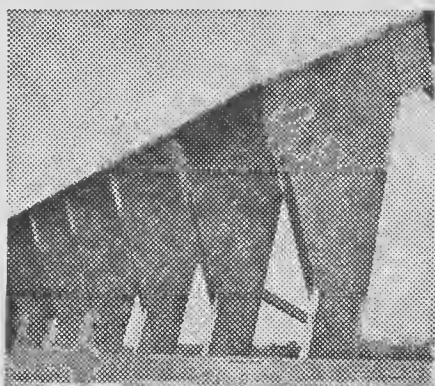
25. When it's "coming home time" for the wild geese, Alf may often be seen scanning the sky with binoculars, or with hand cupped to ear, listening for a distant plaintive honking. Led on by the oldest and wisest goose, large vees drift by high overhead, powerful wings beating 50 to the minute, arrowheads forward thrust, straining onward. Suddenly, fierce honking from the leader of an oncoming flock, followed by excited noisy gabblings, fills the sky. To these weary geese the long sought refuge is at hand. To the man who joyously awaits them—it's spring! V

NEW METHOD low-cost FARM BUILDING erected by 6 men in 2 days

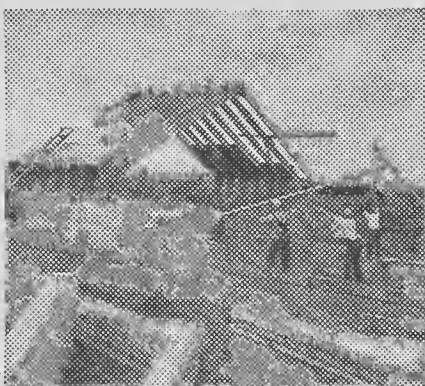


J. Cracknell, of Cairo, Ontario, built this Sylvaply clad 32 ft. x 70 ft. poultry house for 95c per square foot. This cost included materials, labor and 35 windows; feed room, fitments and painting were extra. How did he do it? The answer lies in the amazingly simple RIGID FRAME system for building

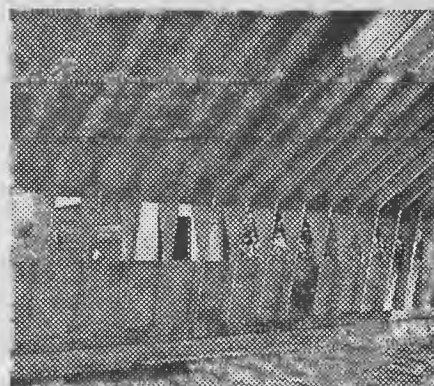
low cost farm structures of any length in clear span widths up to 38 feet. Rigid frames are simply arch rafters formed with four straight pieces of lumber joined together with fir plywood gusset plates as shown below. All the materials you need are in stock at your local lumber dealer.



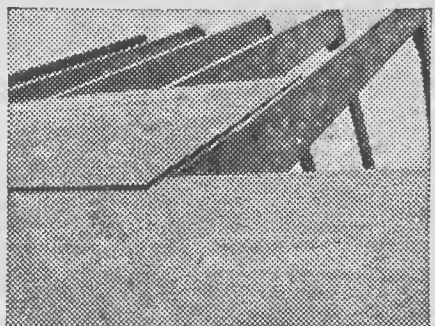
Each half arch consists of two pieces of lumber connected by nailed gussets of 5/16" Sylvaply. One man and a boy nailed four complete arches per hour.



Sylvaply wall and roof panels are nailed to arches as each is pushed up in place. Practically no temporary bracing is needed during construction.



Note ample headroom at sidewalls. Walls can be closed in with another run of plywood or spaces used for windows as required.



For rigid frame or other types of farm building, lapped 3/8" Sylvaply panels provide a serviceable, low-cost, single skin roof.

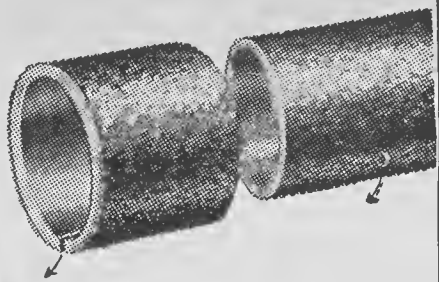
A farm building expert in the area had this to say, "This is the most economical building I have ever inspected. I am most enthusiastic that for poultry, hogs, machinery sheds and other building uses, rigid frames are the only thing." For more information about rigid frame construction you can write SYLVAPLY, Box 335, Vancouver, B.C., or, better still, see the lumber dealer in your community who sells Sylvaply Plywood. Get the free 24 page booklet on rigid frame construction.

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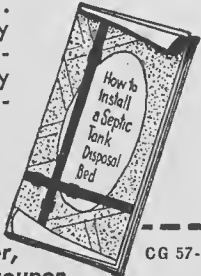
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Alberta dairyman carries 28 cows nine months on grass and silage from 50 acres, and green feed

by ED. HAMULA



[Guide photo]

Don and Glen McCracken don't miss many meals or TV performances, because of clipping fresh forage and filling these bunk-type mangers thrice daily.

DR. W. E. PETERSEN, famed American dairy scientist from the University of Minnesota, urged American dairymen a couple of years ago to change their gauge of efficiency in milk production from production per cow to production per acre. He probably realized that a few dairy farmers in the United States and in Canada were already thinking in these terms.

At Harmattan, Alberta, George Herbert McCracken, a World War II veteran, farming three quarter-sections of land under the Veterans' Land Act,

is applying at least one aspect of efficient production—mechanical grazing or clipping—with a considerable amount of success. During the past two seasons Mr. McCracken has been able to handle 28 milking cows on only ten acres grass, for over one-third of the year, without too many labor or management problems.

Here is how George McCracken and his sons do it. Each morning and evening 21-year-old Don takes his turn at the forage harvester and in half an hour clips enough grass and feeds 28 milking Holsteins. In the meantime, George and his oldest son Glen do the milking. Just before the noontime meal each day, Glen takes his turn at the clipping and feeding. The clipped hay or grass is unloaded into a series of feed bunks about three feet by eight feet. The bunks are ideally situated on the north end of a five-acre enclosure, just in front of a clump of trees, which provide the necessary shade in the summertime. Of inexpensive plank construction, they are erected about two feet off the ground. The thrice daily feeding chore, the boys say, does not interfere with their own mealtimes, or with finishing in the evenings in time to catch their favorite television shows.

Sherwin O. Robinson, V.L.A. settlement officer in the Olds district, and Howard Fulcher, local district agriculturist, say that George McCracken is, as far as they know, one of the first dairy farmers in southern Alberta to give the method a good try. George adds that from the time he commenced using this system of feeding in 1955 until the following spring, his cows did not show the usual production drops. Usually there had been a drop in total poundage when the cows were moved from succulent, green summer grasses to dry winter feeds. His ideal in feeding is green grass all summer, and enough silage to last until the green grass sprouts again in the spring. The McCracken boys feel that the cows produce more milk under this method of

FORD MOWERS

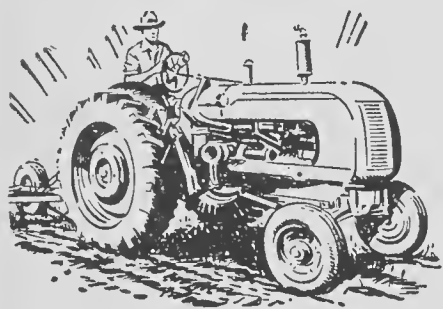


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feeding, because "the cows do not have to go looking for feed and can concentrate more on production." In addition, the fencing problem was almost non-existent. Likewise, the usual cut teats from barbs and brush just did not show up.

ON the McCracken farm a closed-in rack is pulled behind a forage harvester. For the clipping operation, enough grass is cut each time to keep the cows occupied at eating for a half-hour. The feeling here is that if more feed is placed before the cows than is necessary, it is wasted, and the efficiency reduced. In 1955, ten acres of alfalfa-brome mixture were used to maintain the 28 head of milking cows from June 1 to late September. The remaining 50 acres from the field were used for silage and dry hay. Some green feed was also put up. By this method this farmer is able to keep his cows on green feed until late in the winter. Last year he planned to fill his trench silo with green feed and store his hay dry, for use after the supply of silage had run out.

So, with only nine years on the farm, here is one farmer who realizes the importance of new and valuable ideas. This idea is not particularly new to countries where quantity and costs of land are at a premium. New Zealand, Denmark and the Netherlands have used this method of grazing for a good many years. V

Save Moisture

Continued from page 15

Prairie farmers are to be commended for adopting cultural methods that tend to maintain a trash cover, or stubble-mulch, which is the most effective method of protecting cultivated land. The heavy crop growth of the past few years has made the maintenance of an effective trash cover a fairly easy task. With years of lower precipitation and less crop residue, greater care will be necessary in protecting the land. The use of implements that create a rough, or cloddy, surface may be necessary, but such means, while effective, give protection for a shorter period of time, and repetition may be necessary.

SOME erosion by wind can be expected every year, due to the natural characteristics of the soil, or improper cultural operations. However, the information gained by farmers and the technical agriculturists on the control of wind erosion, will, if put into practice, prevent a repetition of the wholesale devastation that has occurred in the past. Control is not a one-man job, nor is it the responsibility of the government. It can only be accomplished by the combined effort of all the farmers.

Years of low precipitation and periods of drought can be expected, but the time, duration and severity cannot be foretold. Cultural operation must be planned for the maximum conservation and use of the limited precipitation, and for the control of erosion. Such farming is a science, and it is only by the use of scientific methods that the maximum production can be obtained.

(Dr. J. L. Doughty is officer-in-charge of the Soil Research Laboratory, Experimental Farms Service, Department of Agriculture, Swift Current, Saskatchewan.—ed.) V

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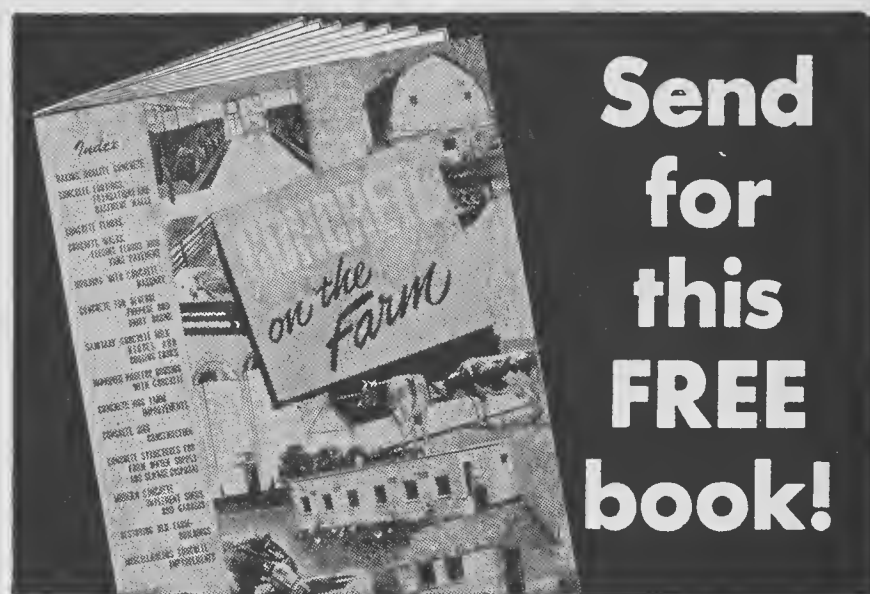


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The Busy And Wonderful Bee

The bees don't worry about automation and mechanization, but they excel in instinct and industry

by HILDA CROOK

It does me good when I see the bees out and flying around the hive, on the first warm day of the season. Only a while ago they came out for their first flight since I packed them for winter.

It is healthy for bees to fly and have what is called their cleansing flight, but my bees picked a rather poor day. It was very bright and sunny, but not quite as warm as they expected. The last fall of snow was still so soft and fluffy, that when they lit on it, they couldn't get up again, and I found a great number dying.

I quickly spread some old blankets and sacks in front of the hive for quite a distance. This put an end to the loss of life. It is when they are returning from their short flight, and ready to go back into the hive that they land on the ground. When the snow is melted and firm, they are alright, because they can get up and fly again, but in loose, fluffy snow, they simply bury themselves deeper as they flap their wings trying to rise. By then they are cold, and die by the hundreds. I never cease thinking how remarkable bees are—they do so much good. What they take to live on, robs nothing; in fact, it does good by producing more seeds around the garden and fields.

Last spring, I bought a two-pound packet with queen, as I had not had bees for a few years. She was such a beautiful queen. When I opened the hive to see how she was doing, I was delighted with the brood nest; it was the best I had ever seen. I believe she had laid even more than the usual 2,000 eggs a day. Anyway, from that two-pound packet of bees, we had 190 pounds of honey.

In the fall, I had intended killing them off, but I didn't have the heart to do it, after all the work they had done all summer. It just seems wicked to destroy them. I usually save at least one hive, and perhaps, feed it sugar syrup. In most cases, however, I leave them 50 pounds of honey.

BEES are so interesting. They have such a perfectly ordered life in the hive. Everyone works for the good of the colony. There are nurse bees, who look after the brood for the first two weeks of their lives. Then they become field bees, and go out to gather nectar or pollen. There are guard bees, those that sting whenever the hive is disturbed by robbers, or maybe you, when you open the hive. One can hardly blame them; they are only protecting their home.

They even have a special nectar and pollen dance to tell the other bees in the hive where they have located a good harvest. I have never seen this, but I have seen the guard bees attack robber bees, and also the bees that keep the hive ventilated to ripen the honey (which is done at night), or to keep the hive cool. There will be a row of bees at the entrance, some facing one way, some the other, fan-



[Drawn by the author]

Bees do a lot of good to plants, and are harmless if they are left alone.

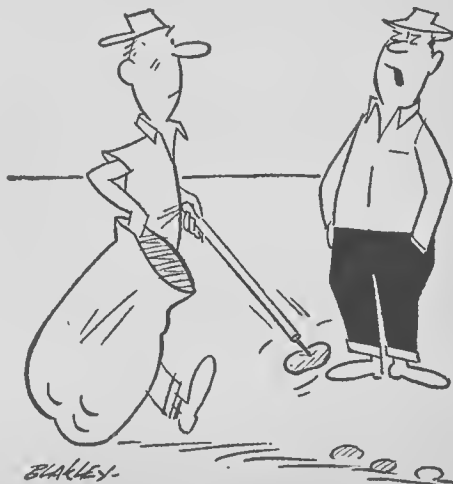
ning their wings all the time. Some fan cool air in, the others, warm air out. You can feel this yourself, if you like to hold your hand near the hive entrance. At one side, there is warm air coming out, at the other, the cool air is going into the hive. They are changed off by other bees, but the ventilation is kept up day and night.

When you think of the perfect comb they build, each cell a perfect six-sided figure, tilted slightly upward to hold the honey, it is really wonderful, as we, with all our gadgets can't do a job nearly as well even though we see what we are doing.

It is not honey when it is gathered. It is nectar, which is about 70 per cent moisture. This they turn into honey by holding a drop on their tongues until enough moisture is evaporated, and then it is ready to be put into a cell. Another drop of nectar is taken, and so it goes on until all is honey, ready to be capped.

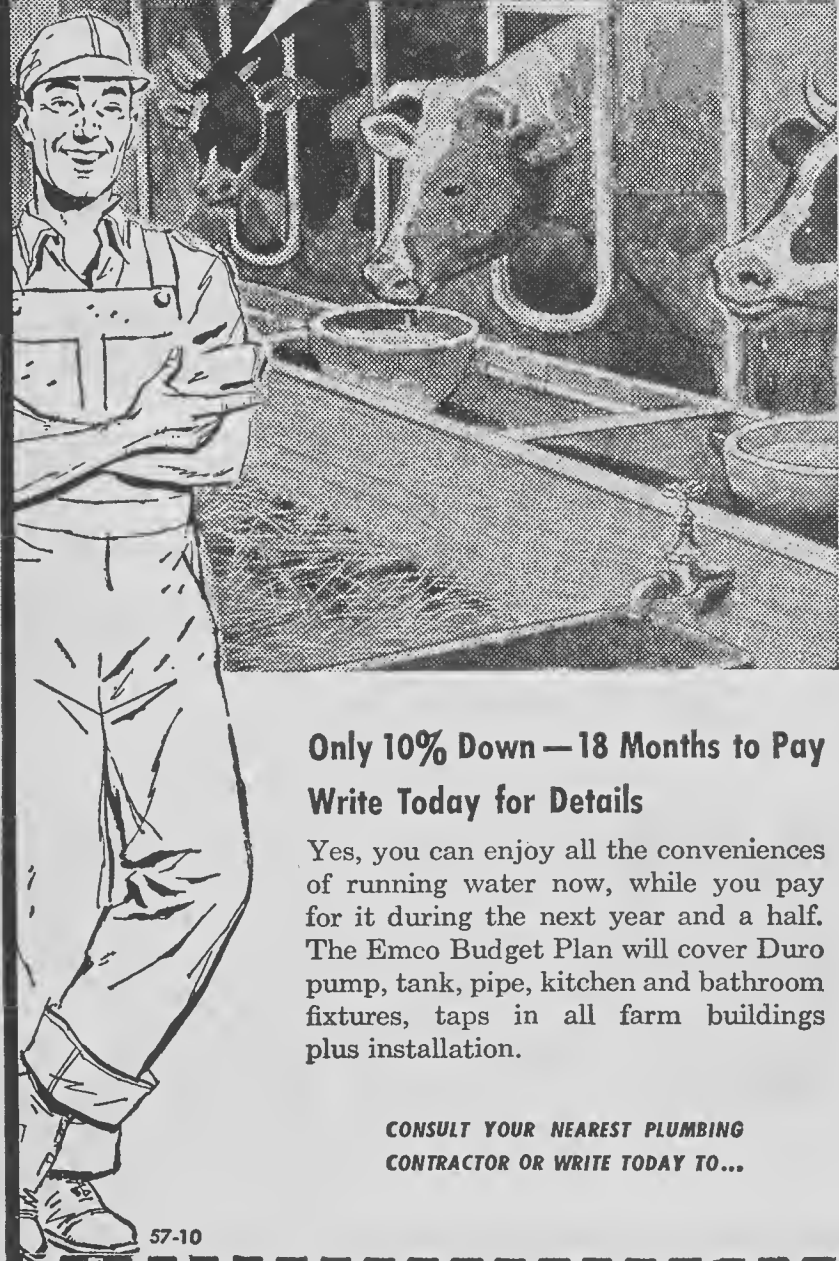
There are so many wonderful things about bees, that I would like to have a glass hive and be able to see more of them. Even if one cannot see everything, a hive or two of bees is very interesting and, for the small outlay, a profitable investment.

They do not sting every chance they get, as some people think. If



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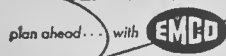
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handled rightly, one seldom gets stung. Quite often I have gone right through the season without a sting, but you never know, so it pays to be well prepared and do things the right way. V

Fast Come-Back For the Jersey Breed

THE group hardest hit by the mounting determination of housewives not to buy high-fat milk has been the Jersey producers. They were already reeling from her increasing preference for low-test milk to keep herself and hubby slim and stylish. Then, recent publicity suggesting a close relationship between heart disease and butterfat consumption, created an even more serious problem for the Jersey men.

"It left no incentive for milk distributors to buy Jersey milk. In fact, there was a real reluctance to buy the once-favored Jersey product," admits Jack Pawley, secretary-manager of the Ontario Jersey Cattle Club.

But Ontario's Jersey men refused to throw in the towel. "If the housewife wants low-fat milk, we'll give it to her," they decided, and came up with a program that, in little more than a year, restored the Jersey cow as a queen of the dairy breeds.

They virtually abandoned their regular, high-fat Jersey milk program, and trade-marked a partly skimmed, two per cent butterfat "all-Jersey" milk to replace it. This was followed by a vigorous advertising campaign, city by city, to win back a place in the dairy business.

One by one they arranged franchises for dairies in several cities. They established a voluntary ten cents per cwt. deduction from producers on milk for fluid use, to finance promotion and advertising by the Ontario

He was a power politically for years, but he never got prominent enough to have his speeches garbled.—Frank McKinney.

club itself. About two cents of this goes to the Channel Islands Breeds' Milk Producers' Association, and the regular payments to the Ontario Whole Milk League and the local producers' associations are also made from the general fund. They hired a skilled advertising agency in Toronto to help them in that promotion, and suddenly Jersey milk, and the small fawn cow, were no longer medical outcasts.

AFTER being persuaded to take on the campaign, one distributor commented: "If I'd been told a year ago that I would soon be out looking for Jersey milk, I would have laughed. But now, I'm begging for it."

Dairy farmers with Jerseys suddenly have found their milk in big demand. One man on a 50-acre farm, who was shipping at manufactured prices, turned to the two per cent market, installed a bulk tank and equipped his dairy to meet health requirements, and is now making \$75 more per month at fluid milk prices.

"In fact," states Jack Pawley, "we have gone rapidly from a milk surplus to a shortage."

Dairies in London, Stratford, St. Thomas, Peterborough, Lindsay, Toronto, Kitchener, and other centers,

took on the milk, and increased sales.

One dairy, selling 800 quarts of regular Jersey milk before switching over to the two per cent product in May, 1956, had boosted Jersey sales to 7,000 quarts by November. At St. Thomas, Jersey men claim that the program has been a major factor in counteracting the introduction of a three-quart container, which has sprung up in a nearby town.

Of course, the program has won some sidewise glances from other producer groups, who are wondering just what the over-all effect of this program will be.

"Whose sales are they cutting into?" they ask.

"No one's," replies Jack Pawley, who is in the strange and happy position of looking for more Jersey producers, so he can see the program introduced to markets that are without it as yet. "We are stimulating the sale of all milk by our energetic promotion. There is no price cutting. Our bargaining is done as it always was, through the Ontario Whole Milk League. In most centers, the breeders are supporting their local producers' associations too. But we have a special product. So we are franchising a few

dairies to sell it, and providing active competition among dairies."

While they are selling milk that is claimed to be higher in solids-not-fat, than some others, they are determined to keep their advertising honest. "All of our advertising is approved by the Federal Department of Health and Welfare," Pawley says.

He also denies that they are further contributing to the butter surplus. "We are cutting into the swing to straight skim milk. We have figures to show that the sale of skim milk levelled out when our two per cent all-Jersey went on the market." V



Lilly FEEDLOT INTERVIEW WITH HENRY TIETJENS, BRYANT, IOWA

"...my gains on 'Stilbosol' feeds are 4¢ per pound cheaper..."

That's the difference between profit and loss these days!"

As told to Eugene S. Hahnel

Henry Tietjens is a careful, experienced cattle feeder from near Bryant, Iowa. He generally feeds about 200 head a year on his 300-acre farm. The 1955-56 feeding season was his second using 'Stilbosol'-fortified supplements. Mr. Tietjens knows exactly what his gains and costs are because he weighs his cattle regularly to keep track. It was his own set of records that sold him on the value of including supplements with 'Stilbosol' in his rations.

"'Stilbosol'-fortified supplements increased my gains from 2.75 pounds per day to 3.14 pounds per day," Mr. Tietjens reports. "I could in-

crease my gains in other ways, but the 'Stilbosol' way is much cheaper. I figure my gains are 4¢ per pound cheaper. That's the difference between profit and loss these days. I can't afford not to keep feeding 'Stilbosol.'"

Commenting on how much help was provided by his feed manufacturer, Tietjens says, "I could name several ways my feed manufacturer helps me. One way is to help me plan my management through a farm inventory. And, of course, they make sure I receive the latest feeding information that can help me increase my profits."



After a cattle-weighing session, Tietjens (left) and his feed manufacturer's representative, Harvey Schmidt, change guesses to facts by figuring gains and cost of gains on his cattle.



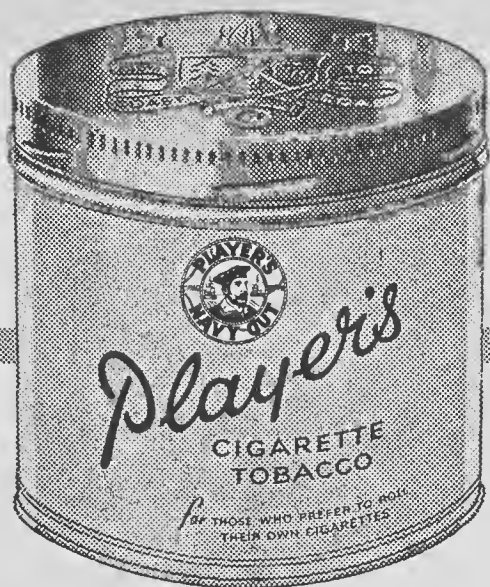
The average daily feedlot ration fed by Henry Tietjens consists of 15 pounds corn silage, 13 lbs. corn (half shelled, half corn-cob meal), 4 lbs. hay, and supplement fortified with 'Stilbosol.'



'Stilbosol' is Eli Lilly and Company's trademark for Diethylstilbestrol Premix which is manufactured and sold under exclusive license granted by Iow State College Research Foundation, Inc., under its U. S. Patent No. 2751303.

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Range Pockets In the North

IN many parts of western Canada you will find small isolated areas where soil, vegetation, and often micro-climate (a little climate within a regular climatic zone), correspond to large, natural belts many miles away—as if each particular zone was dumped on the surface like a bucket of wet cement on a basement floor, flinging tiny blotches far beyond the perimeter of the main body.

For instance, the southernmost tip of Vancouver Island contains a piece of the garry oak country of California. Farther north, on Hornby Island, in the upper Gulf of Georgia, are more oak lands, and in one isolated cove, which faces to the south, you'll find cactus, conglomerate rock and a hard-water spring. Similarly, the southern Okanagan Valley near Osoyoos, B.C., is a transplanted piece of the great Sonora Desert of Mexico and California. Such an area within an area is the Peace River brakes, a narrow strip of violent landscape along the north bank of the Peace River, south of the town of Berwyn.

This rugged, southward - facing slope is actually transplanted cattle country. Warmed and dried by Pacific air piped in from beyond the Rockies through the deeply cut trench of the mighty Peace, it grows grasses and shrubs—even cactus—normally found in the Foothills country far to the south. A few hundred yards away, above the rim of the river channel, the land reverts again to the level wheatlands of the northern prairie.

The brakes have proved to be a break for nearby farmers, enabling them to run a few cattle to augment their grain crops. Most of this natural range has been taken up under small leases. During the summer and fall the farmers run their stock in the brakes and return them to the home farms for the winter. Although winter feeding is a must in this area, the actual feed consumed per head per winter (about two tons) is much the same as in central Alberta.

TYPICAL of those who run cattle in the brakes is T. W. Allan, known as Slim to his friends and neighbors. A veteran of World War II, Slim grows Thatcher wheat, sweet clover, alfalfa, and Victory oats on 960 acres, and leases a section of the brakes for grazing. The sweet clover and alfalfa serve the dual purpose of balancing his grain rotation, and providing feed for about 50 grade and 14 purebred Aberdeen-Angus cows and their young stock. Part of the grain crop feeds a herd of 30 Yorkshire hogs, and, in years when the moisture supply is good, Slim generally puts in a forage seed crop.

Commercial stock from the Allan farm is loaded at Berwyn for shipment to Edmonton, but there is a good local market for purebred breeding stock. Recognizing this, Slim is an enthusiastic supporter of the Fairview Spring Bull Sale and Fall Purebred Sale, and a director of the Fairview Purebred Sales Association. Following in their father's footsteps, the three Allan boys, Ernie 17, Bob 16, and Norman 14, are active 4-H club members. Future club workers are daughters Shirley nine, and Mary five, who aren't yet old enough to join. ✓

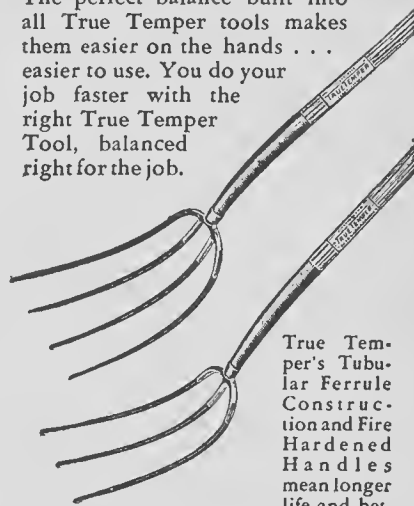
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Selling Made The Difference

Continued from page 14

publishes a monthly news letter; and even helps its members borrow money through the credit union, which started as a staff project, but soon grew beyond that. In fact, just about every crop except the most important one in the province—potatoes—, goes through the Co-op, though some early potatoes do go through their huge potato washer to be then packed under brand names and sold.

This growing co-op has four full-time salesmen calling on stores throughout New Brunswick, and has 22 vehicles on the road.

Looking at this recent, rapid development now, one might almost think that New Brunswick had been waiting for the firm when it began to grow. Unlike most of Canada, the province is on a food-import basis. Among farm foods, only potatoes and blueberries are produced in surplus, and now, Canada's largest army camp, Camp Gagetown, is opening up right at their elbows.

Ralph Burt, for one, sees big developments in store for Maritime farmers. The camp will be the equivalent of a brand-new full-sized city. He says that farmers must consider that in their plans for the future, and that just by eyeing the substantial growth of their own organization, New Brunswick farmers may find the key to their own future. V

Sugaring-Off Time

Continued from page 17

night. One by one the visitors slipped away across the fields. Soon only the camp workers were left to fill the barks, cork the syrup bottles, and wrap the molded sugar for market and shipment.

We, too, turned homeward, laden with syrup and a can of still warm sugar, which we planned to seal, and store away until the following winter. Then, somewhere high overhead, in the quiet woods, a song sparrow trilled.

Briggs glanced up. "When the birds begin to sing," he said, "the maple sugar season takes wing. We'll be lucky to have one more sugaring-off." V

Concentrated N.S. Apple Juice

by D. I. SCOTNEY

THE processing of apples in Nova Scotia has become a vital part of the apple industry, and down in this eastern province they have finally developed a successful formula for pure concentrated apple juice.

It is felt that this new product could very well be a major factor in the revitalization of the apple industry. For a number of years many chemists in North America and Europe have sought for this formula which has been reached at the Canada Food plant, Kentville, N.S. First of its kind

in the world, the product is vitamized, containing all the natural flavor and aroma of the fresh apple. The product is made from blended apples, which must be thoroughly sound, carefully washed, and used at the full peak of maturity. The vitamin C added, also contains the same quality as the regular citrus concentrate.


The new process is dependent on very low temperature evaporation, and expensive, thoroughly engineered equipment imported from Europe, for

the retention of the natural flavor and aroma. It is operated under very exacting, controlled conditions. Processing plants in Nova Scotia have long been looking for a fruit operation that would cut the high cost of containers and transportation of apple juice, as it has previously been marketed.

The great saving in shipping costs, as compared with the standard apple juice, can be realized when the equal of 42 ounces of juice is contained in

the pure concentrated product, in a six-ounce can. The can is also a saving in shelf space for the home, and also in refrigerator space.

The importance of this new development is shown by the great strides that have been made in the consumption of citrus juices since being processed in concentrated form. One big advantage the new concentrated apple juice has over the citrus concentrates is that it is not frozen and needs no refrigeration. V




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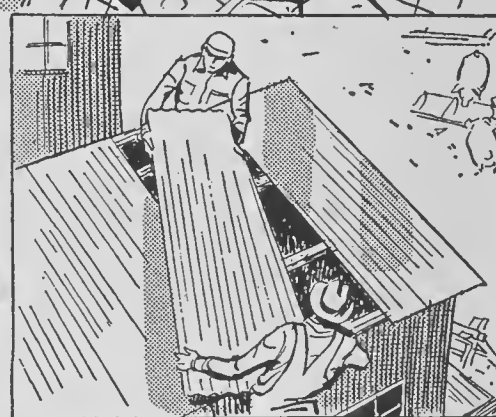
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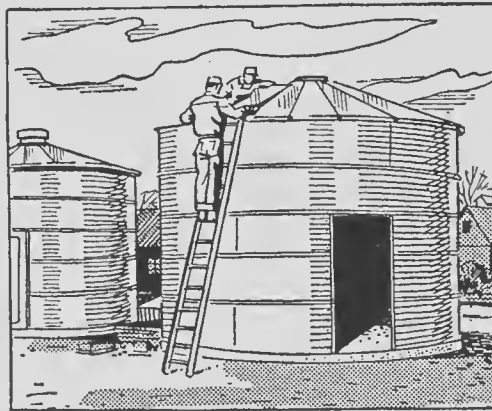
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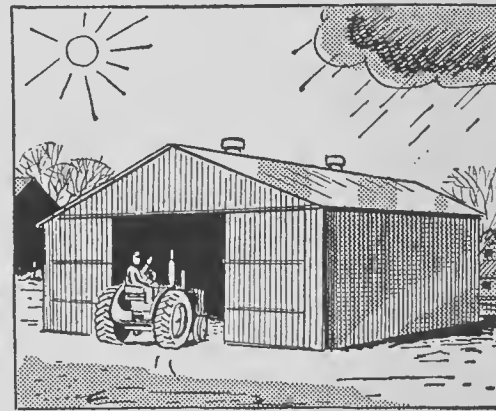
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Contours for A Dairy Farm

CLEASON SNYDER visited Pennsylvania with the Waterloo County Soil and Crop Improvement Association in 1951. His farm on the outskirts of the town of Waterloo hasn't been the same since. While on the tour Cleason saw, for the first time, the application of contour farming to rolling land. He quickly realized that this practice could easily be applied on his own farm to good advantage. It would undoubtedly check soil erosion and aid in overcoming the loss of fertility from his current continuous cropping methods. He resolved to make the switch.

The field he wanted to contour was narrow at one end and therefore difficult to work with. Fortunately, land adjacent to his own was up for sale and he was able to add 50 acres to his holdings. The purchase helped to relieve his planning problem, and, at the same time, gave him a field that rose upward from his buildings in a gentle slope, almost like one section of a giant bowl. As it stood, it was highly susceptible to flash floods or slow, steady erosion.

At this point Mr. Snyder asked soils specialists from the Ontario Agricultural College to help him plan his program. Contours would present problems. A dairy herd was the backbone of his farm operation. Because the contour strips would be long and narrow, fencing each one would not be practical.

They decided, therefore, to make the 20 acres next to the buildings into pasture. They laid out the remaining land in long narrow strips running across the slope and agreed upon the application of a rigid crop rotation, consisting of two years of hay, one of corn or wheat, and a final year of oats, the latter to be grown as a nurse crop for the new seeding. Now that these new plans are in effect, Mr. Snyder has virtually eliminated erosion on his



[Guide photo]

Contour strip farming at Waterloo prevents erosion and boosts yields.

farm and is confident he has also increased production.

FORTUNATELY, Cleason farms 50 more acres across the highway from the main buildings. Here he is able to grow pasture and additional feed. On 25 acres of this, he established a rotation of clover, corn and oats. He made generous use of fertilizers — 250 pounds or more to the acre — as well as all his barnyard manure. He fought twitch grass with a corn row crop, grown either as forage or grain. Although much of the farm was taken out of pasture by the contour layout, he overcame this lack by investing in a forage harvester. In spring, early growth from the hay crops in the contours is clipped and ensiled, ready for summer feeding when the pastures are browning up.

Mr. Snyder has found with good reason that books and farm plans can be an all-important part of his farm program. He is keeping a cow herd of about 38 Holsteins, or a total of 70 animals on his 150-acre farm. When visited by The Guide representative the farm was turning over 1,000 pounds of milk per day.

We May Prevent, Rather Than Control, Weeds

Some new herbicides for pre-emergent weed control hold much promise for cash crop growers

PLENTY of farmers could boost per-acre production with high-yielding crops like corn, soybeans, or sugar beets, but the battle against weeds sometimes looks too formidable.

Now, herbicides for pre-emergent weed control hold promise of doing an almost complete job. They make possible higher yields, as well, and should be a big factor in further expansion of the acreages of cash crops. Professor George Jones of the O.A.C., Guelph, says that pre-emergent herbicides are now ready for use on corn and soybeans this summer.

This method promises to be an improvement over weed spraying, which has been popular because it has been fairly effective, cheap, and easily done with home-devised equipment. But post-emergent spraying destroyed weeds only after they had provided serious competition to the growing

plants. For best results, the herbicides had to be sprayed on during a short critical phase of the growth of the crop, and sometimes weather conditions prevented application at that time. The spray removed only susceptible weeds too, and left the need for several tillage operations, when used on row crops like corn.

Professor Jones says that use of pre-emergent herbicides will boost yields of such row-crops, by permitting the corn to be planted with much narrower row spacing, and by eliminating weed competition.

Here is how the herbicide acts. Most weeds in a corn crop, for instance, come from the top inch of soil. If a pre-emergent herbicide is present in, or on, the soil when these seeds germinate, it destroys them before they become established.

Most promising materials on the market have been organic compounds

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like CMU. These compounds are taken in by the roots and are toxic to them, destroying the weed plant. Only small amounts, about one, or one-and-a-half, pounds per acre are applied, so they don't act as sterilants. Such herbicides can be recommended for both corn and soybeans this year, says Professor Jones.

For Corn. Use CMU (it has various trade names, but is commonly called Monuron) at rate of one pound in combination with eight ounces of low volatile ester of 2,4-D, and 30 gallons of water, per acre. Apply immediately following planting and prior to emergence. Cost of the chemical is less than \$5 per acre. This cost can be cut to one-third by applying only a 12-inch band of the chemical on top of the row at planting time, requiring ten gallons of water.

For Soybeans. Alanap 3 is recommended for this crop, to be used much as CMU is used on corn, immediately following planting and prior to emergence, on a smooth seed-bed at the rate of four pounds in 30 gallons of water. Soybeans must be planted uniformly deep. The banding method can be used.

DR. JIM HAY of the Central Experimental Farm, Ottawa, says that two more herbicides look particularly promising right now. They are both under test, but not yet licensed for sale.

Simizin, he says, seems to be effective with corn. It controls almost all weeds, both broad-leaved and grasses, and doesn't appear to injure the corn plants. He says that when this spray is applied, you may not need to cultivate at all for weed control.

The other prospect among the pre-emergent herbicides is called Randox, which controls grasses, but not broad-leaved weeds. It might be of real value to soybean growers, says Dr. Hay.

Professor Jones sums up the case for pre-emergent sprays this way—"We are gradually shifting to preventive control of weeds, much the same as we already use in insect and disease control."

The Picture On the Packet

by E. CHEESBROUGH

ALTHOUGH I have no recollection of any such happening, I feel sure that at some time in my early youth some unfortunate gardening experience must have coincided with the first slighting remarks I heard about the difference between the picture on the packet and the actual floral result of a season's gardening labor. To confirm my skepticism even further, there is also an old family legend, that Dad once disgraced us in the eyes of the entire neighborhood, by harvesting a bumper crop of brussels sprouts from a bed in the front garden, originally seeded with great care to Canterbury bells.

However it came about, one thing is certain, and I confess it with shame, my faith is small.

Consequently I was somewhat astonished last spring to find my curiosity getting the better of my native caution. I informed my wife that we

were not going to bother with the conventional kinds of tomato at all, but would try out a much-advertised, window-box variety called "Tiny Tim." We'd never had any luck with the other kinds anyway, so the sacrifice was small.

So the seeds duly arrived and were planted in two bread tins (my wife's favorite substitute for flats), watered carefully, and watched with curiosity. This was about the latter half of March.

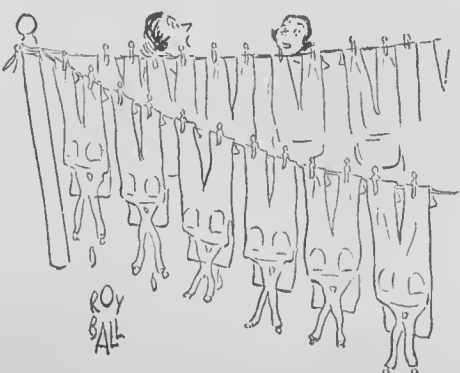
In no time at all, it seemed, the tins were covered with a thick, even growth of green velvet. A response such as this could obviously come only from weeds, and many guesses, as to the variety were hazarded, from stinkweed to toadflax. The arrival of the true leaves proved us wrong and that the burgeoning jungle was indeed composed of "Tiny Tim."

By the beginning of May—much too early to set them out in the garden in this district—Tim was no longer tiny. The growth was about three to four inches high, sturdy, vigorous, and so thick that something obviously had to be done about it. We built a cold frame and transplanted, by actual count, 270 plants. The roots were so interlocked that only by tearing them roughly apart could the plants be separated. Even so, the setback was only very temporary, and by June, the cold frame also resembled a jungle. Only three or four failed to survive.

We transplanted them to the garden, setting them out about two feet apart. No sooner were they in the ground than it started to rain. It rained so much during June and early July that I never expected them to survive. It rained almost daily; torrents of water ran down the rows; and soil washed away from the roots and had to be replaced. One or two plants washed away completely, and most of the time the bottom leaves were actually cemeted into the mud.

But they all lived, and as the floodwaters receded, Tim gradually extricated himself from the mud and started trying to make up for lost time. By mid-August the plants were touching each other and literally hundreds of flowers covered them. By mid-September each had scores of fruit on, and some were ripening. Delicious! With the arrival of frosty evenings, we picked bushels of green fruit and spread them in the loft to ripen. At least two-thirds did, but it was no use. By mid-October no member of the family could look a tomato in the face.

But one thing "Tiny Tim" accomplished, he restored my faith in the "picture on the packet,"—well, almost anyway. I wonder if these newer "Tripl-Crop" tomatoes really grow 16 feet high? We'll soon know, anyway! V



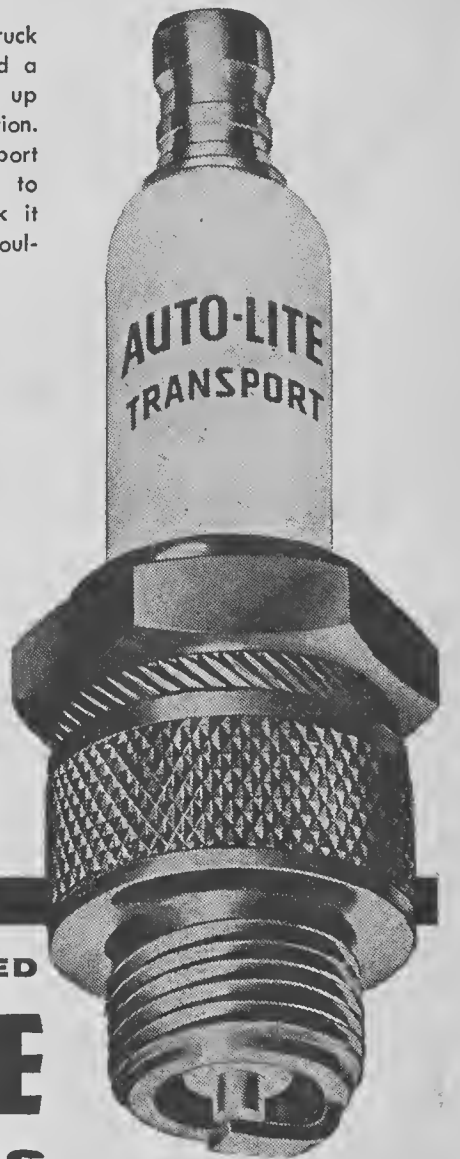
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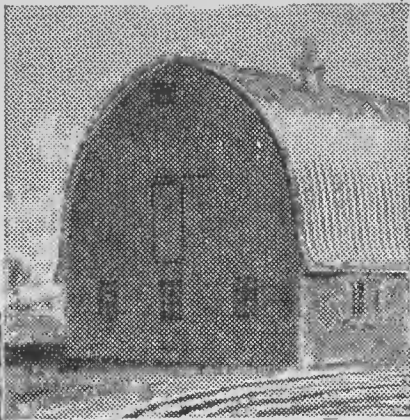
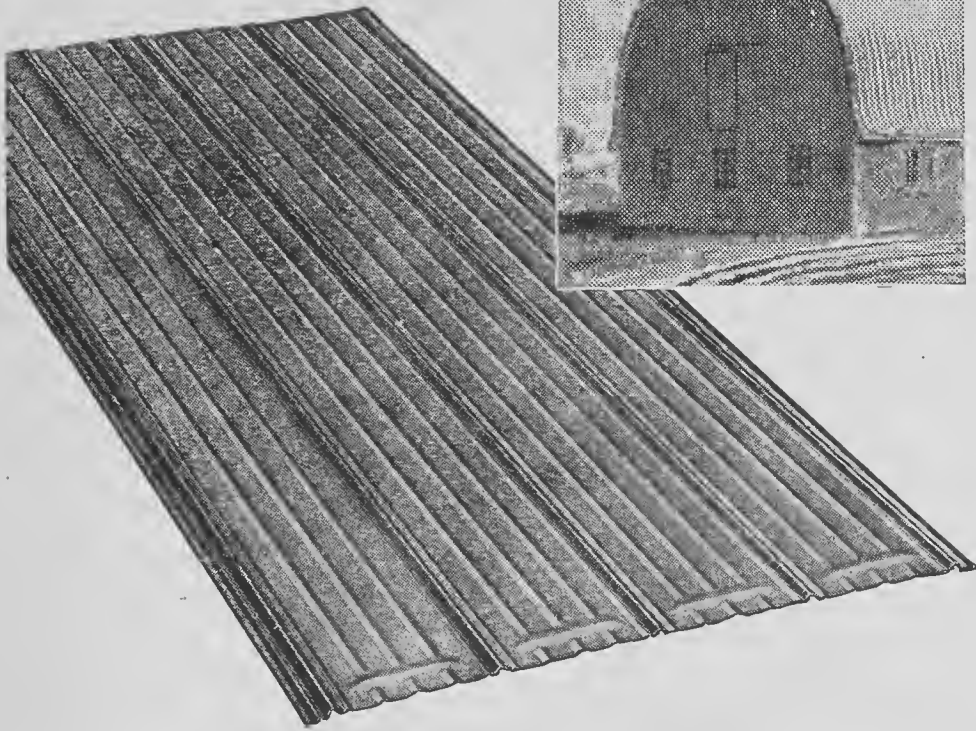
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Loose Housing In Colder Climes

DAIRYMEN with high-producing, registered animals should take special precautions on changing from stanchion barns to open-type loose housing if they live in the colder areas of the prairies. So states Dr. J. M. Bell, Department of Animal Husbandry at the University of Saskatchewan. A high-producing cow probably requires all the feed she can eat. Any sudden demand for body heat is liable to be met at the expense of the most available source of energy, namely, that normally used for milk production. The result is a drastic fall in milk production.

Medium, or low-producing cows aren't affected as readily by a change in temperature of their living quarters, and eventually become like the beef animal, which thrives in cold barns. The reason for this is that the low producer may not be eating all that her digestive system can handle, while housed in a stanchion barn. Under the stimulus of lower temperatures, she will probably eat more, and therefore show little change in production, or body weight.

In tests at the university, about 20 head of high-producing cows were housed in a conventional barn for about three years, and then moved to a loose-housing unit. The average milk production of over 17,590 pounds of 3.4 per cent milk per mature animal dropped to 12,533 pounds of 3.4 per cent milk in the first year of change.

Poor hay quality that year (1951-52) was believed to account for about half the decline, but there was a decided tendency for milk production to follow temperatures in the loafing unit. On the other hand, there was no similar correlation when the animals were housed in the conventional barn, even when outside temperatures dropped as low as 30 degrees below zero. The high-producing cows obviously couldn't consume enough extra feed to offset the effects of cold weather.

Loss in Millions From Bruised Livestock

Carelessness and rough handling render much meat unfit for human consumption

by M. I. LOWRIE

THE loss due to bruising of livestock in one single year is appalling. The major part of this occurs while they are being loaded on the farm, in transit to market, and in the stockyards with strange cattle pending sale, which may be for several days.

According to figures released from the National Livestock Loss Prevention Board, with headquarters in Chicago, the total U.S. loss average for one year, due to animals that died, or were crippled and bruised, amounted to approximately \$25,000,000.

While the figures for Canada are not available, it is reasonable to assume that they are equally as high per ratio of livestock marketed. The unfortunate feature of the situation is



[Guide photo]
A high board baffle excludes unbecome winds from loose housing barn.

HOWEVER, when a few modifications were made to the loose housing barn, production was improved. In 1955-56, when temperatures were similar to those of 1951-52, production was about equal to that formerly obtained in the conventional unit. Instead of having two doors open on the south side, only one was left open, and this was protected by a high board windbreak to keep southerly winds out of the sleeping area. Another modification was to increase roof ventilator space to reduce frosting inside the building.

"We believe," said Dr. Bell, "that open-side barns of the types tested in places where the winter climate is less severe than at Saskatoon, are not suitable for high-producing dairy cattle in this region. However, a less exposed type of uninsulated pole barn, well ventilated and designed to control drafts, should prove quite satisfactory."

Apart from milk volume, the tests produced some interesting sidelights on milk quality and animal health. Moving the animals to the loafing barn had apparently eliminated teat injuries and the mastitis following from such injuries. Also milk quality was decidedly higher.

that a large part of this loss could be greatly reduced, with considerable saving to the producers and consumers. It is impossible to visualize just how a carcass will dress out on the slaughtering floor, as far as loss due to bruises is concerned. It is only when the hide is removed and the cattle eviscerated that an accurate estimate of the damage done can be truly calculated.

The bruises vary in size and location, depending on the extent of the damage. Some are only the size of an ordinary dinner plate and superficial in character. Others involve large patches and often a whole hind or front quarter has to be removed, as a result of extensive destruction of healthy tissue. It is not uncommon for

a carcass to be so extensively bruised that it is useless, as far as food is concerned. This is the type of loss that really runs into big money, especially when top steers, or even the better class cows, are involved.

There are many causes of bruises in cattle. The most important is the horns which are capable of inflicting serious damage in a very short time. Many good steers have left the farm, or feedlot, practically free of bruises, but within 24 hours, owing to severe bunting by other horned cattle in railway cars and in the livestock yards, by the time they were presented for grading on the killing floor, they have deteriorated considerably in value.

THE logical approach to the elimination of horns in cattle is to have them destroyed when calves are only a few weeks of age, by burning the butt with caustic, or by using the most modern method, which is the electric dehorner. Many farmers let cattle reach a year of age before attempting to remove the horns. They will often saw them off and leave a butt about an inch and a half long. The outer ring of the horn is often quite sharp and rough and when they start goring another animal with a pair of these stumps, it is amazing how much damage they can do in a very short time. If the horns are not permitted to develop, much grief can be eliminated.

Other offenders on the list, which frequently cause bruises, are projecting nails and splinters in partitions and in feedlots. These often produce extensive tissue damage, sometimes just beneath the skin. Periodically, spikes and nails have penetrated deep into the muscle tissues, setting up in-

fection and abscess formation. Sharp pieces of wire that have been used in repairing fences have often been responsible for damaging considerable tissue. The owner who keeps a constant lookout for such highly destructive agents, and sees that they are disposed of, is doing a good job of avoiding loss from bruises and other injuries.

Many a good cow has suffered bruises and fractured legs, and spread in the pelvic region, as a result of poor loading facilities on the farm. A good, sturdily built loading chute more than pays for itself in getting cattle to the stockyards free of these unnecessary injuries. Trucks not backed up evenly against loading chutes permit a space of sufficient width for a cow's foot to drop through. This may cause a severe strain in that region and often causes a rupture of internal arteries and liberates excess blood in the surrounding area. This type of injury can be easily avoided.

Many cattle arrive on the slaughtering floor and show evidence of heavy bruise marks, as a result of having been struck on the back with a drover's cane, or other persuading stick. Frequently this means of driving cattle around the stockyards and sale barns is used too often and too harshly. Beef is too expensive these days to have it needlessly destroyed by rough and sometimes cruel handling. An electric prodder with a storage battery concealed in the handle, if used with care, can get the desired results and greatly reduce bruising. What we have to keep in mind is that the producer who delivers the best beef free of bruises is the one who is going to have the demand. V

There's Gold In Them Thar Tourists

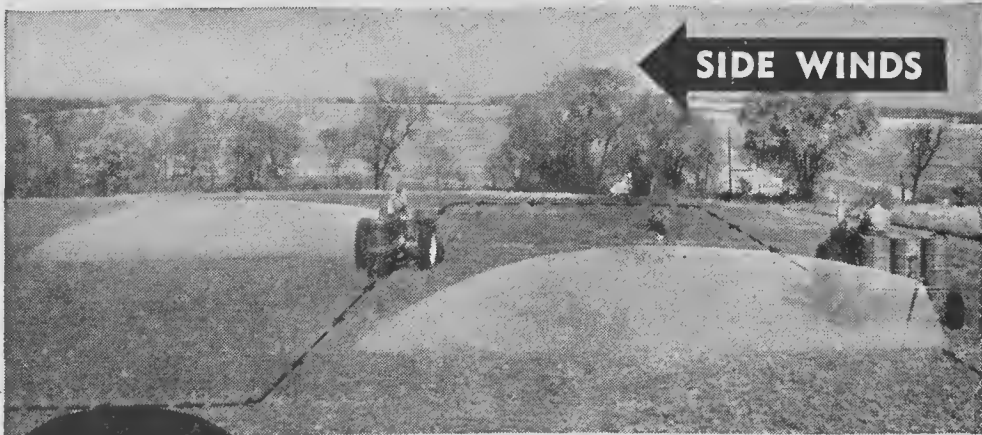


This stand sells apples known of old, that growers label Scotian Gold. Its jellies, sauce and apple butter set hearts of passers-by aflutter.

IN a bid for bigger apple sales, Annapolis Valley, N.S., growers have built a streamlined sales stand along the highway at the huge cold storage plant of the farmer-owned United Fruit Co. The plant puts up such apple products as cider, sauce, jellies and apple butter, and sells them, as well as fresh apples, during the tourist season. They specialize in tourist baskets too, which are novelty-type Indian-

woven wicker baskets, full of apple products. They even have boxes gift-packed that can be shipped anywhere. To further their good will to tourists, the Fruit Company invites travellers to picnic on the grounds there, and make use of the rest room facilities. Scotian Gold is the brand name, and that's the sign they use on their sales stand. V

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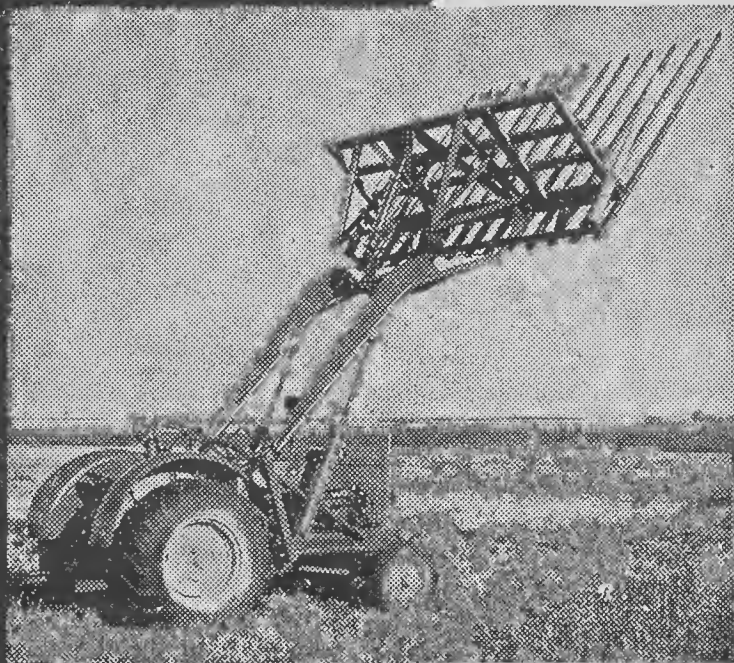
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Ghost Town Poultry Farm

This veteran and agricultural graduate planned his poultry venture well in advance, and has come to know its hazards

AFTER five years in the R.C.A.F. during World War II, Dave Stupich of Nanaimo, Vancouver Island, decided to invest his re-establishment credits in learning the science of poultry husbandry. A man who believes in looking ahead, Dave bought a piece of the abandoned Granby Coal Mine property at a tax sale, before he even started university. He also obtained 200 purebred White Leghorns, and left them in care of his parents while he was away at college. This was to be the foundation of the poultry enterprise he intended to build after graduation.

Dave was graduated from the University of B.C. in 1949. With 150 birds from the University to add to his initial flock, he launched his business right away, with his younger brother, Roy, as a partner. The brothers were able to solve their housing problems quite easily by using some of the ghost town buildings still remaining at the Granby Mine.

Most of the operation was carried on in a large three-storey building, which contained their incubators, electrical brooders, and battery of breeding pens, where the birds could be mated individually. The bulk of the laying flock and feed grain supplies were also housed in the same structure.

In addition to the main enterprise, Dave embarked on an experiment in housing similar to the Stacey method of multiple-bird laying cages, but a bit more daring in concept. This consisted of a 12-foot-square open-cage shelter, designed to contain 200 birds, at a capital cost of about 50 cents per bird.

Built in the yard outside the main building, the structure has a shed-type roof, and a sloping wire floor which sits about four feet off the ground. The cage is enclosed with chicken wire on the top half of each side, and slats of lathing along the bottom. The latter allows the birds to stick their heads through and feed from troughs that have been built

around the outside on three sides of the structure. A row of nests is located against the fourth side, and below these is an automatically fed water trough. The sloping wire floor enables droppings to fall free of the cage, and the eggs to roll to the back for easy collection. Eggs are removed several times a day.

DAVE'S shelter is much cheaper to build than the type generally used in the Stacey system. Two hundred layers in one big cage allow only three-quarters of a square foot per bird, as compared with about one square foot in the other method. This enables those with big flocks to cut housing costs to a minimum.

The open-air cages have been so successful that the brothers now keep about 3,000 birds in similar shelters, including one cage, which measures 100 feet by 12 feet. Birds in this big unit are fed by a Jamesway automatic feeder. Dave and Roy plan to convert the main building to community cages.

A year or so ago, disaster struck the Stupich enterprise in the form of a virulent disease, which almost wiped out their business. At the time

The real ones, the right ones, the straight ones and the true, The pukka, peerless sportsmen—their numbers are but few.
—William Henry Ogilvie.

the disease reached its peak they had about 7,000 birds of all ages; when it had run its course, the flock was reduced to somewhere around 1,000. To help recover from their heavy financial loss, Dave took an outside job, and helped Roy with the birds on evenings and weekends.

At the present time, the brothers have built up their flock again to about 3,500 birds. In place of White Leghorns they are now running H and N chicks. These are an early maturing, fast-feathering, heavy-producing, registered, crossbred chick developed in the United States.



Open-cage shelters like this are used by Dave Stupich and his brother for housing 3,000 birds on their poultry farm at Nanaimo on Vancouver Island.



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Science And the Farm

Squealing pigs, subjected to the screaming noise of a jet airplane at the USDA Research Center, Beltsville, Maryland, have shown no ill effects under the strain. The experiments were undertaken when farmers became fearful that noise from aircraft would have harmful results on their livestock. Workers exposed meat-type hogs to blaring aircraft noises produced by a record machine at irregular time intervals, ranging from a few seconds to 12 minutes in length. While the hogs have shown no outward or inward signs of adverse effects to date, researchers eventually hope to find out whether the jet noises will cause a drop in egg, meat, or milk production, or a change in feeding habits. They also hope to discover whether or not a tolerance for the noise develops with a life-long exposure to it. Pigs are being used first, because they grow more rapidly and have a shorter life cycle than cattle. V

Shock-treatment apparatus may soon become a standard piece of farm equipment. With it, farmers will be able to improve seed germination, dry grain, process food, and kill weed seeds. The key to these future possibilities is a small, simple-to-operate, inexpensive, electrical device which has been invented by O. A. Brown of the USDA Experiment Station at Knoxville, Tennessee. The experimental model has successfully speeded up corn germination, helped to prepare soybean seeds for dehydration and inhibited the germination of other seeds. V

How fast can insects fly? According to Dr. Brian Hocking, Professor of Entomology at the University of Alberta, no living insect is capable of flying faster than 27 miles per hour in level, continuous flight, or 35 miles per hour in short bursts. Professor Hocking arrived at these speeds by measuring the power required by a number of insects in flight, their capacity for nectar as food, and their efficiency. His studies showed that the Monarch butterfly can carry enough fuel for a flight of about 620 miles. V

Farmers have fewer headaches (it says here!) than any other occupational group in the United States. This was revealed in a survey conducted by the Louisiana State University School of Medicine. It was not suggested that farmers have less to worry about than other people. The reason probably stems from the fact that they breathe more fresh air than their city cousins. Here are the survey figures on the percentage of people in various occupational groups who get headaches: medical students 80, business executives 77, professional people 70, housewives 69, clerks 68, salesmen 58, manual laborers 55, and farmers 50. V

Dancing honeybees act as real estate agents for a swarm, bent on finding a new home. When a newly formed swarm wants to leave an older colony, scouting bees go out to look for a new place to live. They soon return and dance before the swarm.

The dances are said to tell the exact location and quality of the new nesting places. When a first-class nesting place has been located, the scouting bees dance in a lively manner for a long time. But when the new home is less suitable, the dance tends to be more modest and lazy, and of shorter duration. Several groups of bees report to the swarm at once, each group trying to sell the swarm on the piece of real estate it has found. Over a period of several days the dancing bees change their step and gradually a unanimous decision is reached to move to one spot. V

A new insect repellent, claimed to be the best one ever developed, is the product of scientists at the USDA Research Center, Beltsville, Maryland. It is superior to any other repellent in warding off mosquitoes, biting flies, fleas, ticks and chiggers. An organic chemical called diethyl toluamide, this anti-insect weapon provides long lasting protection, is a pleasant lotion and can be safely applied to skin or clothing. One application will last for several hours and even resists rubbing and wearing. The repellent, which is an answer to the dreams of gardeners, sportsmen, picnickers, bathers, farmers and other outdoor workers, was first synthesized in 1952. Since then it has undergone extensive tests and is now ready for market. V

Plant growth, as well as traffic, can be stopped momentarily by a red light. This discovery was made by scientists at the Smithsonian Institution in the U.S. They have found that the braking mechanism on plant development is a relatively narrow band of invisible infra-red light from the sun. These short red wave lengths, when they reach the plant, cause the internal formation of some product which in turn is believed to interfere with plant development. The scientists think it is this process which is responsible for shaping a plant and controlling the development of stems, leaves and blossoms. This discovery may prove to be second in importance only to photosynthesis. Photosynthesis, long accepted as the basis for all life on earth, is the process by which plants, with energy from the sunlight, manufacture carbohydrates from water and carbon dioxide. V



"I think they misrepresented the pole-type construction of this building."



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VOL. LXXVI WINNIPEG, APRIL, 1957 No. 4

New University

WIDESPREAD interest was no doubt created throughout Ontario last month, and to a lesser extent in other parts of Canada, by the announcement that a new university may be established at the Ontario Agricultural College at Guelph.

The Hon. W. A. Goodfellow, Minister of Agriculture, announced that consideration is being given by the Government to this idea. The Government is reported to feel that having in mind the general university situation, and in view of the \$20 million university expansion program under way by the Province, the facilities at the College site could be used more fully if other faculties were added. Courses in forestry and engineering have been mentioned, as well as a faculty of arts and perhaps a teachers' college. The intention appears to be to keep Guelph a predominantly agricultural institution. No doubt the general university idea seems especially encouraging now, in view of the \$50 million available for university building expansion over the next ten years, from the Federal Government.

Some move, such as the one now under consideration, has been overdue for years. The College is now 83 years old. It has always been a part of the Ontario Department of Agriculture and responsible to the Minister, which in ordinary matters really means the Deputy Minister. The Ontario Agricultural College is too old and too important an institution for this apron-string arrangement to continue. Some years ago, in response to a demand for more representation in College affairs by agriculture itself, an advisory committee was established, in place of the board of governors that had been discussed. The suggestion of a university is a happy one, if the idea is allowed to develop normally. It will not only fully co-ordinate the work of the O.A.C., the Ontario Veterinary College and Macdonald Institute, all of which are well established on the site, but would provide a medium for the development of other faculties and colleges adaptable to, and compatible with, the atmosphere at Guelph.

What seems much less justifiable to us is the suggestion that the Ontario Agricultural College itself, notwithstanding the creation of a new university, may be kept directly responsible to the Department of Agriculture. This, we suggest, would be most unfortunate. A university is a collection of scholars, not of civil servants. In essence the work of a government department is to administer the law. Education flourishes in an atmosphere quite different; one of free inquiry, primarily concerned with the development of the human mind. If a new university does develop on the Guelph site, we hope that the Ontario Agricultural College will not be denied the opportunity to participate directly in its life and its collective responsibilities. ✓

Marketing Legislation

NOW that the judgment of the Supreme Court of Canada on the questions submitted to it by the Ontario Government with respect to marketing board legislation has been more or less digested, the way appears open for the development of marketing boards with fewer restrictions than have prevailed heretofore. This is all the more true because, at this writing, the Federal Government has announced that it will bring to Parliament, before the session ends, some necessary amendments to the Agricultural Products Marketing Act, 1949. Assuming the passage of this Federal complementary marketing legislation, producers can go

forward with some real hope of being able to do a satisfactory marketing job, to the extent that marketing boards are a necessary key to the solution of such problems.

Thirty years have now elapsed since the search for satisfactory farm marketing legislation began in Canada, for products other than grain. It was in 1927 that British Columbia enacted its Produce Marketing Act. The story of all that has happened since in this field is far too long and complex for any attempt to elucidate here. Suffice it to say that during recent years a great deal of credit is due to the Government of Ontario, for its evident desire to assist the farmers of that province with whatever legislation was needed to provide farm marketing organizations with a sound legal basis for their operations. A generous measure of credit is also due to the Federal Government and the Parliament of Canada, for the various federal enactments designed to assist agriculture in the solution of its marketing difficulties.

By the time this issue reaches our readers, the necessary federal legislation should have been enacted and the hog producers of Ontario will heave a sigh of relief. So, also, will the peach growers of that province, and perhaps also the tobacco growers, who have been seriously discussing the merits of a marketing board to replace the collective marketing procedure which they have followed for years. In Alberta, the poultry producers have been laying careful plans for the establishment of an egg marketing board, and meetings were recently announced in connection with a general educational program looking to this end. Ontario poultry producers also appear to be looking with longing eyes at the possibility of achieving a more satisfactory marketing system through the agency of a marketing board, as do also the poultry producers of Manitoba and Saskatchewan.

Now that the prospect of a satisfactory legal basis for producers' marketing board activities has improved, it is to be hoped that producers, in their anxiety to achieve more satisfactory marketing programs, will not proceed too hastily. Time will be required to formulate sound procedures, and a period of education will be necessary before a substantial majority of the producers concerned will be able to vote on individual schemes with sufficient understanding of what is involved. "The more haste, the less speed" may well apply in the months ahead. ✓

The South Saskatchewan Project

NOT long ago, in Ottawa, the Federal Minister of Agriculture, Mr. Gardiner, called attention to the fact that the estimates this year carry an appropriation of \$500,000 for the South Saskatchewan River Project. With his customary political and mathematical dexterity, he was able to hold before the Commons the possibility of stretching this figure to \$7 million, in the event that certain other items were not expended. Whatever the purpose was in putting forward this estimate, any actual expenditure will be all to the good.

The Gordon Commission, in its interim report, frowned rather severely on further development of irrigation in Canada at the present time, or until population has caught up with food production. This view, of course, is not confined to the Gordon Commission and is not without merit, especially in Alberta, where irrigation is already reasonably well forward.

The situation in Saskatchewan, however, is entirely different, and neither the Hogg Commission, whose efforts were applied specifically to the South Saskatchewan Project, nor the Gordon Commission, appear to have given due weight to this fact. Geographically and climatically, Saskatchewan is unfortunate in that the agricultural limit of the semi-arid brown soil zone, which rests on the Alberta-Saskatchewan boundary, divides this dry area so that at least two-thirds lies in Saskatchewan, where no large-scale irrigation has been developed, and only one-third in Alberta, where several hundred thousand acres of land are under irrigation. This has imposed a one-crop economy on the province to a very considerable extent, and with it a substantial measure of instability.

That this element of instability has been much less evident during the last dozen years or more, is no proof that it no longer exists. Moreover, the Hogg Commission estimated that it would require a period of around 35 years to effect a complete changeover from dry-land grain growing to a fully adjusted irrigation economy for the 450,000 or more acres directly involved in the South Saskatchewan Project. It seems to us that the Gordon Commission has swallowed the Hogg Commission medicine without sufficient examination; and that they have, in addition, confused the Saskatchewan situation with the vastly different conditions which exist in Alberta. If Canada's population is to increase by about 60 per cent in the next 25 years, and if Canada's farm population is to drop to seven or eight per cent of the total in that period; and if in addition, some 35 years are required to completely effect the changeover, the time to begin this ultimately necessary development is now. The fact that this is an election year is, perhaps, a mere coincidence, but it could be made a happy one. ✓

Radio and T.V.

IT is much too early yet to arrive at a full and reasoned consideration of the Fowler Commission Report on radio and T.V. Certainly the Government and Parliament were wise to forego discussion of this interesting problem, until after the election, although it may well be discussed on the hustings.

One interesting recommendation appears to us to offer an ingenious solution to an otherwise difficult problem. The Commission has recommended that the present board of governors of the C.B.C. be abolished, and that a new board of governors be set up to have jurisdiction over all radio and T.V. in Canada, but without any responsibility for the management of the Canadian Broadcasting Corporation.

What could happen under this recommendation, if it is accepted by the Government, is that the new board of governors could consist of the present board, with some additions. The Commission supports the idea of private and public stations existing side by side, which the majority of Canadians are accustomed to, and want to have continued. The new board of governors would be given the atmosphere of impartiality which the present board does not possess now to a degree satisfactory to private station enthusiasts. Divorced from the responsibility for management policy, it would still be responsible for carrying out the principal purpose for which the Canadian Broadcasting Corporation was established, namely, to develop a distinctly Canadian cultural medium available to all Canadians as rapidly as may be consistent with reasonable economy and a high standard of quality. It will be gratifying to everyone concerned that the Commission has not found cause for serious criticism of the operation of the C.B.C. ✓

Federal Aid Necessary

MORE and more, the demand is growing for federal aid to education. Each time a representation is made, or the Prime Minister approached, his answer is a firm "No."

By this time, most thinking Canadians should be aware of the fact that under the British North America Act, education became the responsibility of the provinces. Nevertheless, the need for more money to be devoted to education in Canada is sufficiently urgent and the difficulties of some provinces in providing the necessary money have been so real as to make federal aid to education inevitable, sooner or later. The same problem faces both Canada and the United States,— as it must face any democracy. Unfortunately, it seems to be characteristic of democracies that they appear to prefer to spend billions on arms which are likely to be obsolete in a comparatively short time, to tens of millions on education, which does not become obsolete. Instead, it is a civilizing force, which is not only regenerative in character, but carries its own built-in factor for social and economic development. ✓